2003 Chevrolet Tracker Owner Manual

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This manual includes the latest information at the time it was printed. We reserve the right to make changes after that time without further notice. For vehicles first sold in Canada, substitute the name “General Motors of Canada Limited” for Chevrolet Motor Division whenever it appears in this manual.

Please keep this manual in your vehicle, so it will be there if you ever need it when you’re on the road. If you sell the vehicle, please leave this manual in it so the new owner can use it.

Litho in U.S.A.
Part No. 22683299 B First Edition

Canadian Owners

You can obtain a French copy of this manual from your dealer or from:

Helm, Incorporated
P.O. Box 07130
Detroit, MI 48207

About Driving Your Vehicle

As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or an accident. Be sure to read the “on-pavement” and “off-road” driving guidelines in this manual. See *Your Driving, the Road, and Your Vehicle on page 4-2* and *Off-Road Driving with Your Four-Wheel-Drive Vehicle on page 4-16*.

How to Use This Manual

Many people read their owner’s manual from beginning to end when they first receive their new vehicle. If you do this, it will help you learn about the features and controls for your vehicle. In this manual, you will find that pictures and words work together to explain things.

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Index

A good place to look for what you need is the Index in back of the manual. It is an alphabetical list of what is in the manual, and the page number where you will find it.

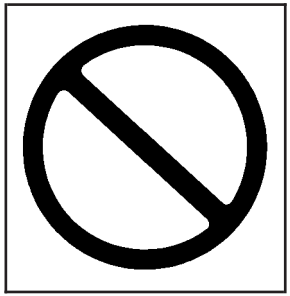
Safety Warnings and Symbols

You will find a number of safety cautions in this book. We use a box and the word CAUTION to tell you about things that could hurt you if you were to ignore the warning.

⚠ CAUTION:

These mean there is something that could hurt you or other people.

In the caution area, we tell you what the hazard is. Then we tell you what to do to help avoid or reduce the hazard. Please read these cautions. If you don't, you or others could be hurt.



You will also find a circle with a slash through it in this book. This safety symbol means "Don't," "Don't do this" or "Don't let this happen."

Vehicle Damage Warnings

Also, in this book you will find these notices:

Notice: **These mean there is something that could damage your vehicle.**

A notice will tell you about something that can damage your vehicle. Many times, this damage would not be covered by your warranty, and it could be costly. But the notice will tell you what to do to help avoid the damage.

When you read other manuals, you might see CAUTION and NOTICE warnings in different colors or in different words.

You'll also see warning labels on your vehicle. They use the same words, CAUTION or NOTICE.

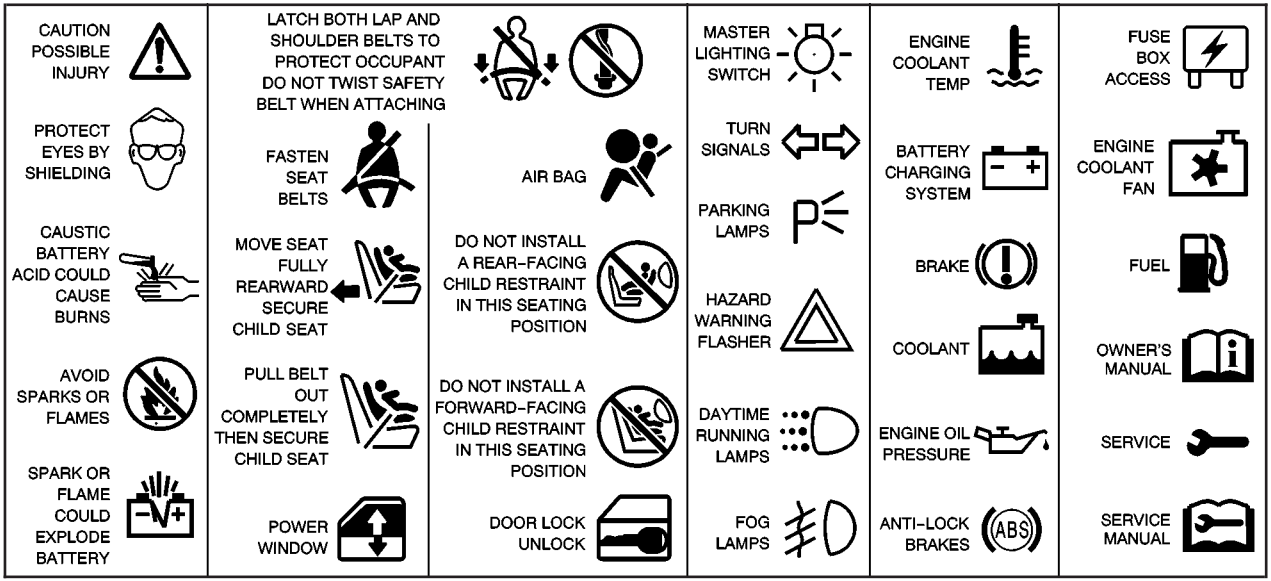
Vehicle Symbols

Your vehicle has components and labels that use symbols instead of text. Symbols, used on your vehicle, are shown along with the text describing the operation or information relating to a specific component, control, message, gage or indicator.

If you need help figuring out a specific name of a component, gage or indicator, reference the following topics:

- Seats and Restraint Systems in Section 1
- Features and Controls in Section 2
- Instrument Panel Overview in Section 3
- Climate Controls in Section 3
- Warning Lights, Gages and Indicators in Section 3
- Audio System(s) in Section 3
- Engine Compartment Overview in Section 5

These are some examples of vehicle symbols you may find on your vehicle:



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Front Seats

Manual Seats

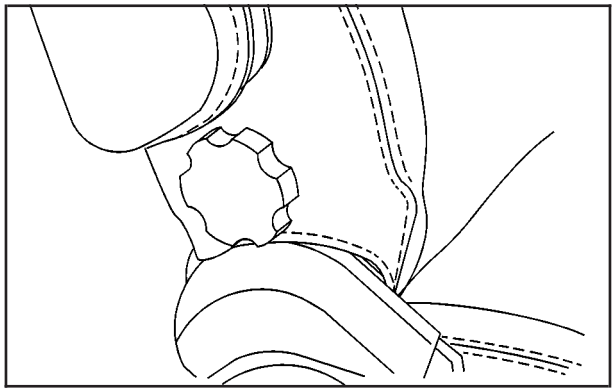
⚠ CAUTION:

You can lose control of the vehicle if you try to adjust a manual driver's seat while the vehicle is moving. The sudden movement could startle and confuse you, or make you push a pedal when you don't want to. Adjust the driver's seat only when the vehicle is not moving.

Lift the lever located under the front seat to unlock it.

Slide the seat to where you want it and release the lever. Then try to move the seat with your body to make sure the seat is locked into place.

Manual Lumbar



If your vehicle has this feature, turn the knob located on the driver's side seatback to adjust support of the lower back.

Reclining Seatbacks

To adjust the seatback, lift the lever on the outboard side of the seat cushion. Release the lever to lock the seatback where you want it. Pull up on the lever, and the seatback will go to the upright position.

But don’t have a seatback reclined if your vehicle is moving.

⚠ CAUTION:

Sitting in a reclined position when your vehicle is in motion can be dangerous. Even if you buckle up, your safety belts can’t do their job when you’re reclined like this.

The shoulder belt can’t do its job because it won’t be against your body. Instead, it will be in front of you. In a crash you could go into it, receiving neck or other injuries.

The lap belt can’t do its job either. In a crash the belt could go up over your abdomen. The belt forces would be there, not at your pelvic bones. This could cause serious internal injuries.

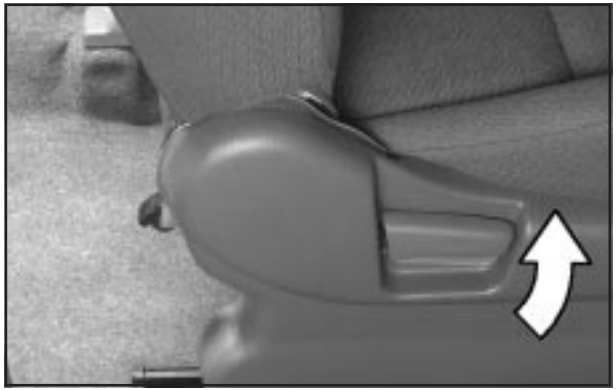
For proper protection when the vehicle is in motion, have the seatback upright. Then sit well back in the seat and wear your safety belt properly.

Head Restraints

Adjust your head restraint so that the top of the restraint is closest to the top of your head. This position reduces the chance of a neck injury in a crash.

The head restraint can be adjusted to four positions. To raise the restraint, pull up on the restraint. To lower the restraint, push in the release button while you push down on the restraint.

Easy Entry Seat



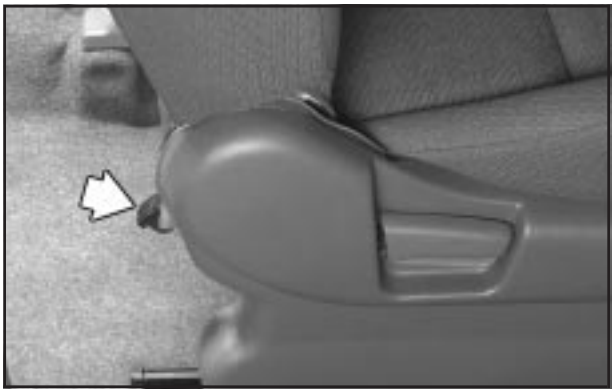
For two-door models, the front seats of your vehicle make it easy to get in and out of the rear seat area.

When you pull up on the recliner release lever, the seatback will tilt forward and the whole seat can slide forward when pushed by hand.

After someone gets into the rear seat area, move the seat rearward until it locks. Then move the seatback to its original position.

⚠ CAUTION:

If any easy entry seat isn't locked, it can move. In a sudden stop or crash, the person sitting there could be injured. And, even if there is no crash or sudden stop, a driver sitting in an unlocked easy entry seat could be startled by the sudden movement and hit the wrong control or pedal, causing an accident. After you've used it, be sure to push rearward on any easy entry seat to be sure it is locked.



To get out of the rear seat area, push the release pedal on the rear of the front passenger's side front seat. Then tilt the seatback forward, and slide the whole seat forward.

Rear Seats

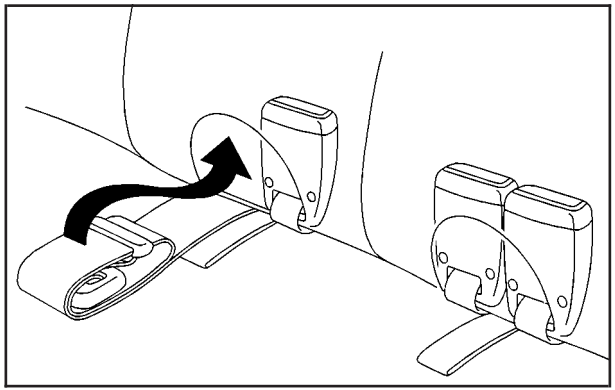
Rear Seat Operation

⚠ CAUTION:

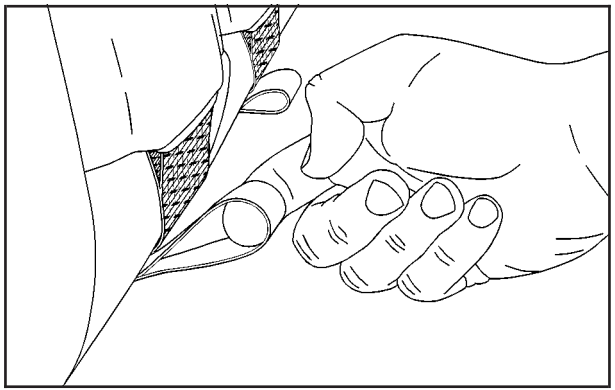
If a head restraint is not installed on the seatback or stored in the vehicle properly, it could be thrown about the vehicle in a crash or sudden maneuver. People in the vehicle could be injured. Remove the head restraints only when you need to fold the seat, and be sure that the head restraints are stored securely in their proper storage location. When the seat is returned to the passenger position, be sure the head restraints are installed properly.

Folding the Seatback

The rear seat in your vehicle folds to provide more cargo space. To fold the rear seats do the following:



1. Fold the safety belt buckles and center safety belt (if equipped) into the pocket of the rear seatback.



2. Pull the release straps located near the center of the vehicle to release the seat cushion. Fold the seat cushion forward.

3. Remove the head restraint from the seatback by raising the head restraint fully. Press the release button and remove the head restraint from the seatback.

4. Store the head restraint in the top of the folded seat cushion.

5. Pull up on the seatback release knob(s) on top of the seatback and fold the seatback down.

   On two-door models, pull up on both release knobs at the same time to lower the seatback.

6. Secure the two black straps attached to the back of the folded seat cushion by hooking them onto the knobs on the back of the seatback when folded down.

To raise the rear seat do the following:

1. Unhook the two black straps from the buttons on the seatback.
2. Fold the rear seatback up. Push and pull on the seatback to ensure it's locked in position.
3. Reinstall the head restraints by inserting them into the seatback. Make sure the head restraints are secure in the seatback.
4. Insert the plates of the two black straps into their storage slots on the bottom of the seat cushion.
5. Fold the seat cushion back and make sure it is locked into position.
6. Remove the safety belt buckles and center safety belt (if equipped) from the seatback pocket.

Safety Belts

Safety Belts: They Are for Everyone

This part of the manual tells you how to use safety belts properly. It also tells you some things you should not do with safety belts.

⚠ CAUTION:

Don't let anyone ride where he or she can't wear a safety belt properly. If you are in a crash and you're not wearing a safety belt, your injuries can be much worse. You can hit things inside the vehicle or be ejected from it. You can be seriously injured or killed. In the same crash, you might not be, if you are buckled up. Always fasten your safety belt, and check that your passengers' belts are fastened properly too.

⚠ CAUTION:

It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed. Do not allow people to ride in any area of your vehicle that is not equipped with seats and safety belts. Be sure everyone in your vehicle is in a seat and using a safety belt properly.

Your vehicle has a light that comes on as a reminder to buckle up. See *Safety Belt Reminder Light on page 3-26*.

In most states and in all Canadian provinces, the law says to wear safety belts. Here's why: *They work*.

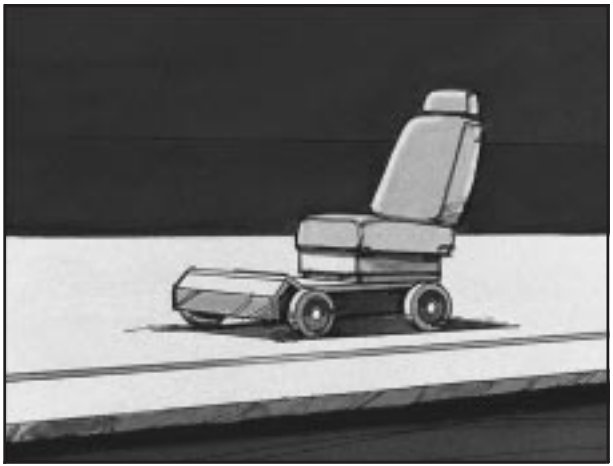
You never know if you'll be in a crash. If you do have a crash, you don't know if it will be a bad one.

A few crashes are mild, and some crashes can be so serious that even buckled up, a person wouldn't survive. But most crashes are in between. In many of them, people who buckle up can survive and sometimes walk away. Without belts they could have been badly hurt or killed.

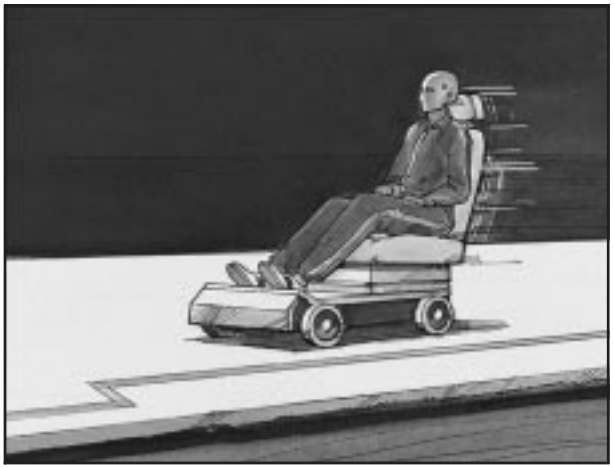
After more than 30 years of safety belts in vehicles, the facts are clear. In most crashes buckling up does matter... a lot!

Why Safety Belts Work

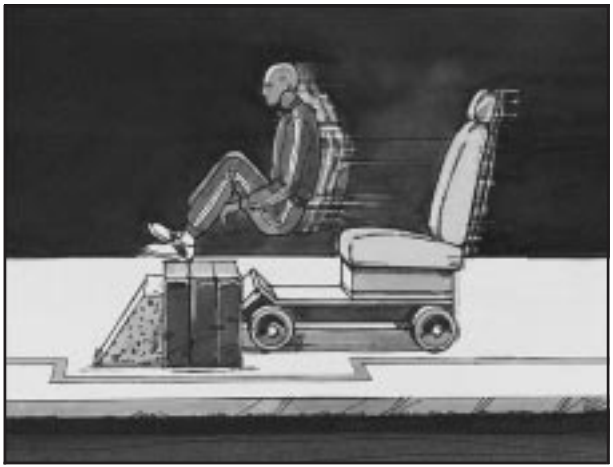
When you ride in or on anything, you go as fast as it goes.



Take the simplest vehicle. Suppose it's just a seat on wheels.

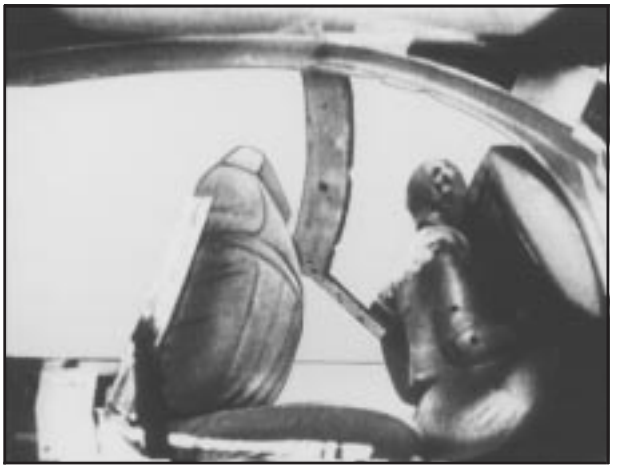


Put someone on it.



Get it up to speed. Then stop the vehicle. The rider doesn't stop.

The person keeps going until stopped by something. In a real vehicle, it could be the windshield...



or the instrument panel...

or the safety belts!

With safety belts, you slow down as the vehicle does. You get more time to stop. You stop over more distance, and your strongest bones take the forces. That's why safety belts make such good sense.

Questions and Answers About Safety Belts

Q: Won't I be trapped in the vehicle after an accident if I'm wearing a safety belt?

A: You *could* be – whether you're wearing a safety belt or not. But you can unbuckle a safety belt, even if you're upside down. And your chance of being conscious during and after an accident, so you *can* unbuckle and get out, is *much* greater if you are belted.

Q: If my vehicle has air bags, why should I have to wear safety belts?

A: Air bags are in many vehicles today and will be in most of them in the future. But they are supplemental systems only; so they work *with* safety belts – not instead of them. Every air bag system ever offered for sale has required the use of safety belts. Even if you're in a vehicle that has air bags, you still have to buckle up to get the most protection. That's true not only in frontal collisions, but especially in side and other collisions.

Q: If I'm a good driver, and I never drive far from home, why should I wear safety belts?

A: You may be an excellent driver, but if you're in an accident – even one that isn't your fault – you and your passengers can be hurt. Being a good driver doesn't protect you from things beyond your control, such as bad drivers.

Most accidents occur within 25 miles (40 km) of home. And the greatest number of serious injuries and deaths occur at speeds of less than 40 mph (65 km/h).

Safety belts are for everyone.

How to Wear Safety Belts Properly

This part is only for people of adult size.

Be aware that there are special things to know about safety belts and children. And there are different rules for smaller children and babies. If a child will be riding in your vehicle, see *Older Children on page 1-31* or *Infants and Young Children on page 1-34*. Follow those rules for everyone's protection.

First, you'll want to know which restraint systems your vehicle has.

We'll start with the driver position.

Driver Position

This part describes the driver's restraint system.

Lap-Shoulder Belt

The driver has a lap-shoulder belt. Here's how to wear it properly.

1. Close and lock the door.
2. Adjust the seat so you can sit up straight. To see how, see "Seats" in the Index.

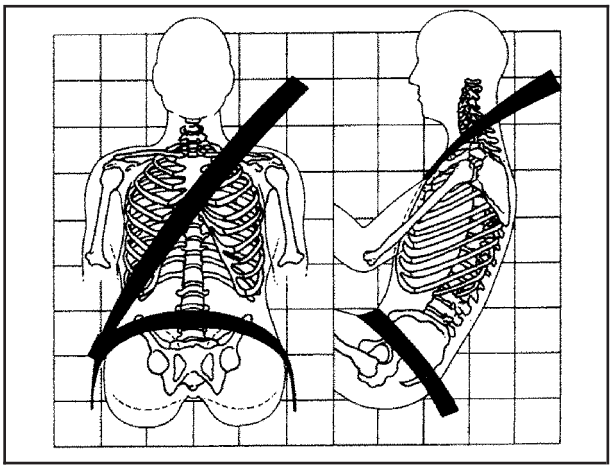
3. Pick up the latch plate and pull the belt across you. Don't let it get twisted.

   The shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.
4. Push the latch plate into the buckle until it clicks.

   Pull up on the latch plate to make sure it is secure. If the belt isn't long enough, see *Safety Belt Extender on page 1-30*.

   Make sure the release button on the buckle is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

5. To make the lap part tight, pull down on the buckle end of the belt as you pull up on the shoulder belt.

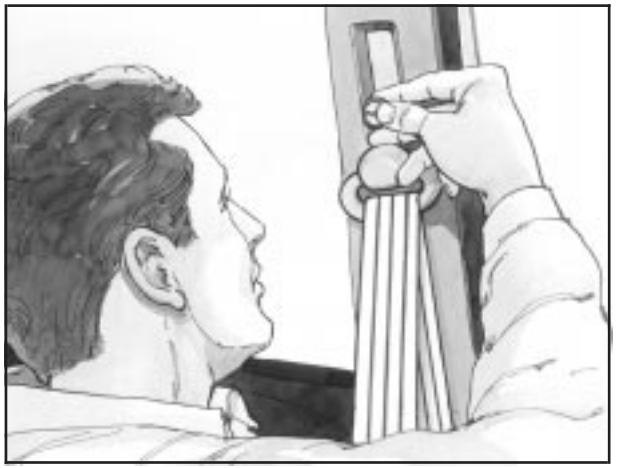


The lap part of the belt should be worn low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones. And you'd be less likely to slide under the lap belt. If you slid under it, the belt would apply force at your abdomen. This could cause serious or even fatal injuries. The shoulder belt should go over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces.

The safety belt locks if there's a sudden stop or crash, or if you pull the belt very quickly out of the retractor.

Shoulder Belt Height Adjuster

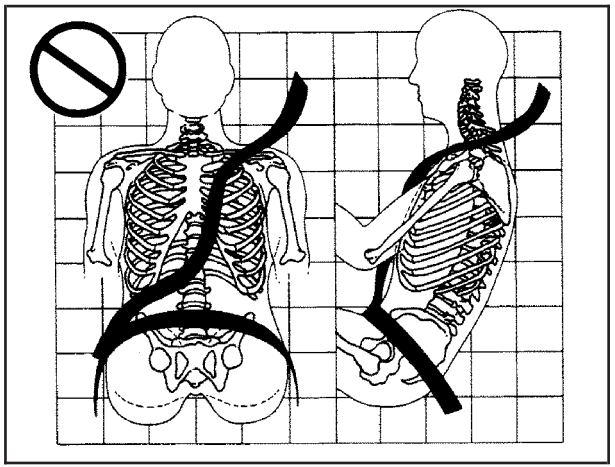
Before you begin to drive, move the shoulder belt adjuster to the height that is right for you.



To move it down, pull the knob and move the height adjuster to the desired position. You can move the adjuster up just by pulling out the knob and sliding the adjuster up. After you move the adjuster to where you want it, try to move it down without pulling out the knob to make sure it has locked into position.

Adjust the height so that the shoulder portion of the belt is centered on your shoulder. The belt should be away from your face and neck, but not falling off your shoulder.

Q: **What's wrong with this?**

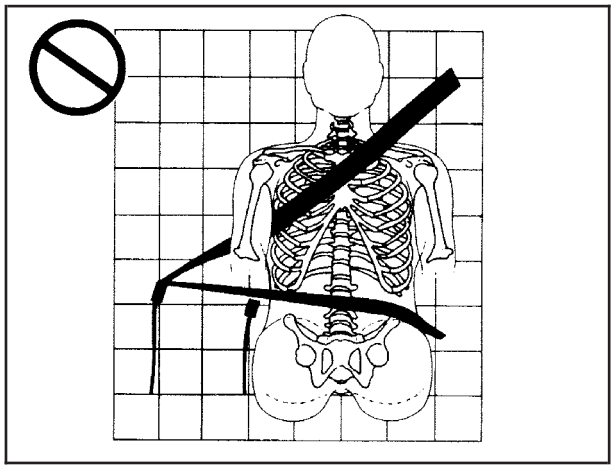


A: The shoulder belt is too loose. It won't give nearly as much protection this way.

⚠ CAUTION:

You can be seriously hurt if your shoulder belt is too loose. In a crash, you would move forward too much, which could increase injury. The shoulder belt should fit against your body.

Q: **What's wrong with this?**

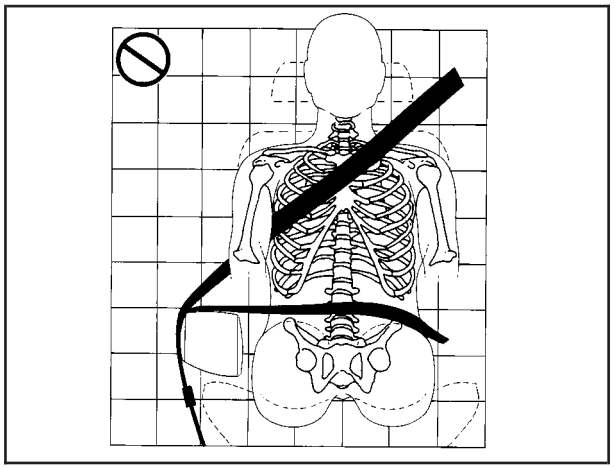


A: The belt is buckled in the wrong place.

⚠ CAUTION:

You can be seriously injured if your belt is buckled in the wrong place like this. In a crash, the belt would go up over your abdomen. The belt forces would be there, not at the pelvic bones. This could cause serious internal injuries. Always buckle your belt into the buckle nearest you.

Q: What's wrong with this?

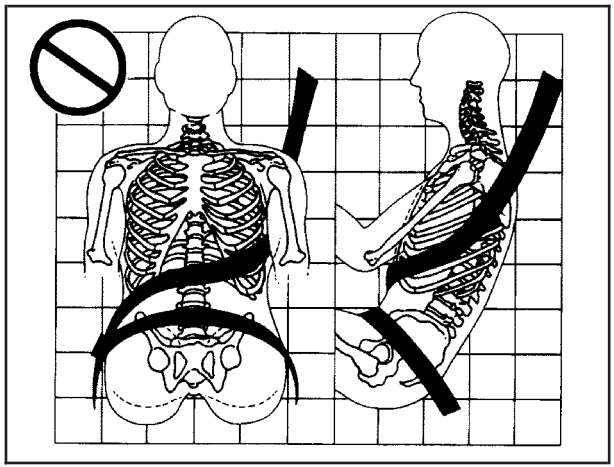


A: The belt is over an armrest.

⚠ CAUTION:

You can be seriously injured if your belt goes over an armrest like this. The belt would be much too high. In a crash, you can slide under the belt. The belt force would then be applied at the abdomen, not at the pelvic bones, and that could cause serious or fatal injuries.
Be sure the belt goes under the armrests.

Q: **What's wrong with this?**

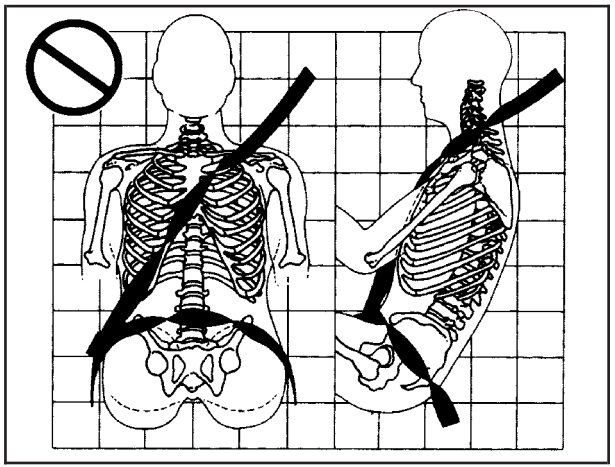


A: The shoulder belt is worn under the arm. It should be worn over the shoulder at all times.

⚠ CAUTION:

You can be seriously injured if you wear the shoulder belt under your arm. In a crash, your body would move too far forward, which would increase the chance of head and neck injury. Also, the belt would apply too much force to the ribs, which aren't as strong as shoulder bones. You could also severely injure internal organs like your liver or spleen.

Q: **What's wrong with this?**



A: The belt is twisted across the body.

⚠ CAUTION:

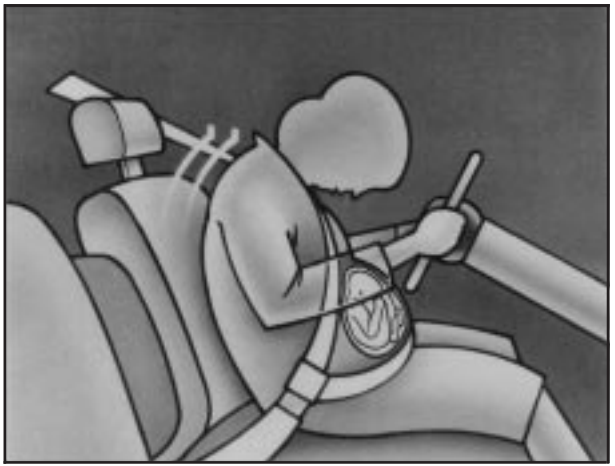
You can be seriously injured by a twisted belt. In a crash, you wouldn't have the full width of the belt to spread impact forces. If a belt is twisted, make it straight so it can work properly, or ask your dealer to fix it.

To unlatch the belt, just push the button on the buckle. The belt should go back out of the way.

Before you close the door, be sure the belt is out of the way. If you slam the door on it, you can damage both the belt and your vehicle.

Safety Belt Use During Pregnancy

Safety belts work for everyone, including pregnant women. Like all occupants, they are more likely to be seriously injured if they don't wear safety belts.



A pregnant woman should wear a lap-shoulder belt, and the lap portion should be worn as low as possible, below the rounding, throughout the pregnancy.

The best way to protect the fetus is to protect the mother. When a safety belt is worn properly, it's more likely that the fetus won't be hurt in a crash. For pregnant women, as for anyone, the key to making safety belts effective is wearing them properly.

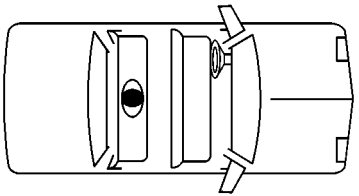
Right Front Passenger Position

To learn how to wear the right front passenger's safety belt properly, see *Driver Position on page 1-16*.

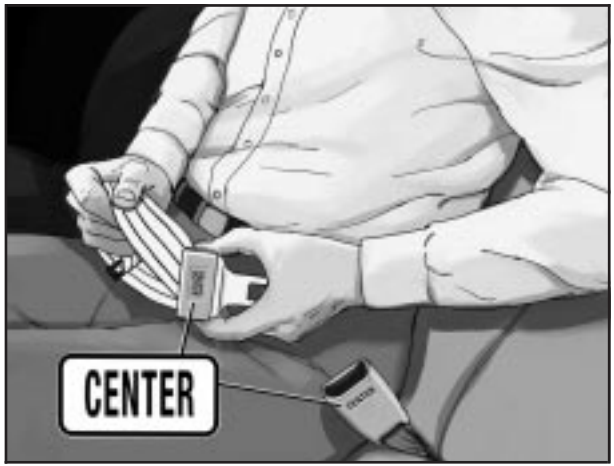
The right front passenger's safety belt works the same way as the driver's safety belt – except for one thing. If you ever pull the shoulder portion of the belt out all the way, you will engage the child restraint locking feature. If this happens, just let the belt go back all the way and start again.

Center Passenger Position

4–Door Models



Lap Belt



When you sit in the center seating position, you have a lap safety belt, which has no retractor. The word “CENTER” is on both the buckle and latch plate. Also, the center buckle and latch plate are a different color than the two outboard buckles and latch plates. To make the belt longer, tilt the latch plate and pull it along the belt.

To make the belt shorter, pull its free end as shown until the belt is snug.

Buckle, position and release it the same way as the lap part of a lap-shoulder belt. If the belt isn’t long enough, see *Safety Belt Extender on page 1-30*.

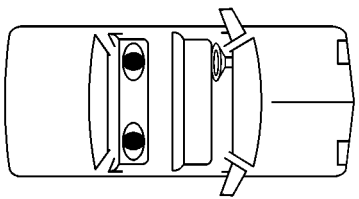
Make sure the release button on the buckle is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

Rear Seat Passengers

It's very important for rear seat passengers to buckle up! Accident statistics show that unbelted people in the rear seat are hurt more often in crashes than those who are wearing safety belts.

Rear passengers who aren't safety belted can be thrown out of the vehicle in a crash. And they can strike others in the vehicle who are wearing safety belts.

Rear Seat Outside Passenger Positions



Lap-Shoulder Belt

The positions next to the windows have lap-shoulder belts. Here's how to wear one properly.

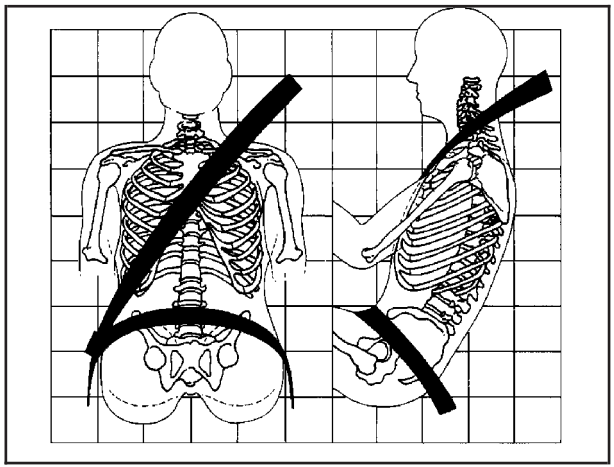
1. Pick up the latch plate and pull the belt across you. Don't let it get twisted.

   The shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.

2. Push the latch plate into the buckle until it clicks. Pull up on the latch plate to make sure it is secure.

   When the shoulder belt is pulled out all the way, it will lock. If it does, let it go back all the way and start again. If the belt is not long enough, see *Safety Belt Extender on page 1-30*. Make sure the release button on the buckle is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

3. To make the lap part tight, pull down on the buckle end of the belt as you pull up on the shoulder part.



The lap part of the belt should be worn low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones. And you'd be less likely to slide under the lap belt. If you slid under it, the belt would apply force at your abdomen. This could cause serious or even fatal injuries. The shoulder belt should go over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces.

The safety belt locks if there's a sudden stop or a crash, or if you pull the belt very quickly out of the retractor.

⚠ CAUTION:

You can be seriously hurt if your shoulder belt is too loose. In a crash, you would move forward too much, which could increase injury. The shoulder belt should fit against your body.

To unlatch the belt, just push the button on the buckle.

Safety Belt Extender

If the vehicle's safety belt will fasten around you, you should use it.

But if a safety belt isn't long enough to fasten, your dealer will order you an extender. It's free. When you go in to order it, take the heaviest coat you will wear, so the extender will be long enough for you. The extender will be just for you, and just for the seat in your vehicle that you choose. Don't let someone else use it, and use it only for the seat it is made to fit. To wear it, just attach it to the regular safety belt.

Child Restraints

Older Children

Older children who have outgrown booster seats should wear the vehicle's safety belts.

Q: What is the proper way to wear safety belts?

A: If possible, an older child should wear a lap-shoulder belt and get the additional restraint a shoulder belt can provide. The shoulder belt should not cross the face or neck. The lap belt should fit snugly below the hips, just touching the top of the thighs. It should never be worn over the abdomen, which could cause severe or even fatal internal injuries in a crash.

Accident statistics show that children are safer if they are restrained in the rear seat.

In a crash, children who are not buckled up can strike other people who are buckled up, or can be thrown out of the vehicle. Older children need to use safety belts properly.

⚠ CAUTION:

Never do this.

Here two children are wearing the same belt. The belt can't properly spread the impact forces. In a crash, the two children can be crushed together and seriously injured. A belt must be used by only one person at a time.

Q: What if a child is wearing a lap-shoulder belt, but the child is so small that the shoulder belt is very close to the child's face or neck?

A: Move the child toward the center of the vehicle, but be sure that the shoulder belt still is on the child's shoulder, so that in a crash the child's upper body would have the restraint the belt provides. If the child is so small that the shoulder belt is still very close to the child's face or neck, you might want to place the child in a seat that has a lap belt, if your vehicle has one.

⚠ CAUTION:

Never do this.

Here a child is sitting in a seat that has a lap-shoulder belt, but the shoulder part is behind the child. If the child wears the belt in this way, in a crash the child might slide under the belt. The belt's force would then be applied right on the child's abdomen. That could cause serious or fatal injuries.

Wherever the child sits, the lap portion of the belt should be worn low and snug on the hips, just touching the child's thighs. This applies belt force to the child's pelvic bones in a crash.

Infants and Young Children

Everyone in a vehicle needs protection! This includes infants and all other children. Neither the distance traveled nor the age and size of the traveler changes the need, for everyone, to use safety restraints. In fact, the law in every state in the United States and in every Canadian province says children up to some age must be restrained while in a vehicle.

Every time infants and young children ride in vehicles, they should have the protection provided by appropriate restraints. Young children should not use the vehicle's adult safety belts alone, unless there is no other choice. Instead, they need to use a child restraint.

⚠ CAUTION:

People should never hold a baby in their arms while riding in a vehicle. A baby doesn't weigh much – until a crash. During a crash a baby will become so heavy it is not possible to hold it.

CAUTION: (Continued)

CAUTION: (Continued)

For example, in a crash at only 25 mph (40 km/h), a 12-lb. (5.5 kg) baby will suddenly become a 240-lb. (110 kg) force on a person's arms. A baby should be secured in an appropriate restraint.

⚠ CAUTION:

Children who are up against, or very close to, any air bag when it inflates can be seriously injured or killed. Air bags plus lap-shoulder belts offer outstanding protection for adults and older children, but not for young children and infants. Neither the vehicle's safety belt system nor its air bag system is designed for them. Young children and infants need the protection that a child restraint system can provide.

Q: What are the different types of add-on child restraints?

A: Add-on child restraints, which are purchased by the vehicle's owner, are available in four basic types. Selection of a particular restraint should take into consideration not only the child's weight, height, and age but also whether or not the restraint will be compatible with the motor vehicle in which it will be used.

For most basic types of child restraints, there are many different models available. When purchasing a child restraint, be sure it is designed to be used in a motor vehicle. If it is, the restraint will have a label saying that it meets federal motor vehicle safety standards.

The restraint manufacturer's instructions that come with the restraint state the weight and height limitations for a particular child restraint. In addition, there are many kinds of restraints available for children with special needs.

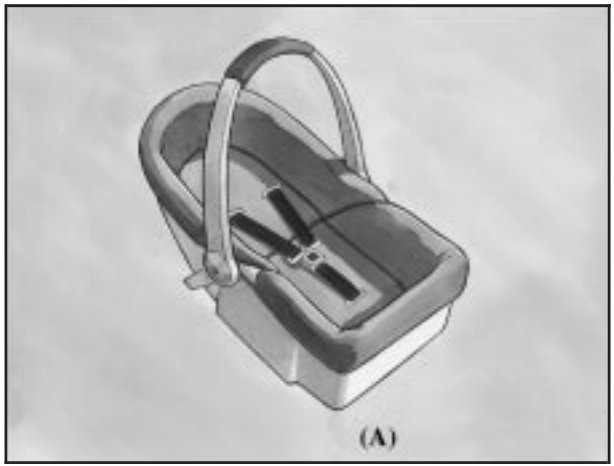
⚠ CAUTION:

Newborn infants need complete support, including support for the head and neck. This is necessary because a newborn infant's neck is weak and its head weighs so much compared with the rest of its body. In a crash, an infant in a rear-facing seat settles into the restraint, so the crash forces can be distributed across the strongest part of an infant's body, the back and shoulders. Infants always should be secured in appropriate infant restraints.

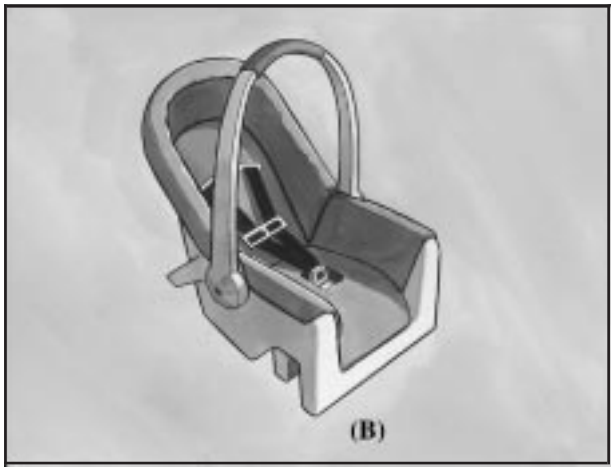
⚠ CAUTION:

The body structure of a young child is quite unlike that of an adult or older child, for whom the safety belts are designed. A young child's hip bones are still so small that the vehicle's regular safety belt may not remain low on the hip bones, as it should. Instead, it may settle up around the child's abdomen. In a crash, the belt would apply force on a body area that's unprotected by any bony structure. This alone could cause serious or fatal injuries. Young children always should be secured in appropriate child restraints.

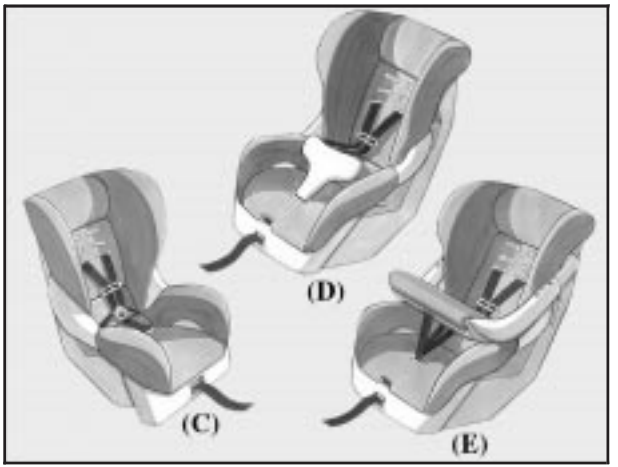
Child Restraint Systems



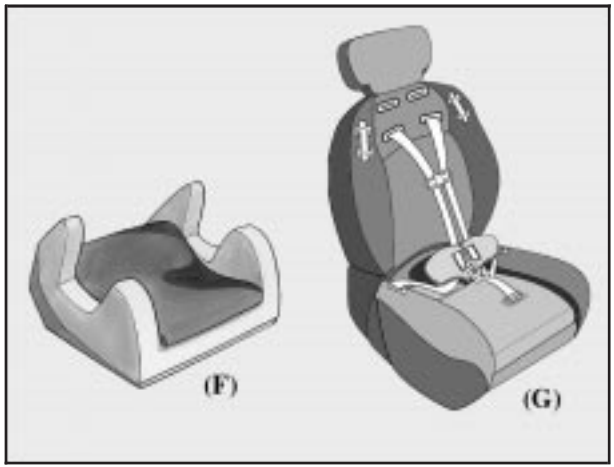
An infant car bed (A), a special bed made for use in a motor vehicle, is an infant restraint system designed to restrain or position a child on a continuous flat surface. Make sure that the infant's head rests toward the center of the vehicle.



A rear-facing infant seat (B) provides restraint with the seating surface against the back of the infant. The harness system holds the infant in place and, in a crash, acts to keep the infant positioned in the restraint.



A forward-facing child seat (C-E) provides restraint for the child's body with the harness and also sometimes with surfaces such as T-shaped or shelf-like shields.



A booster seat (F-G) is a child restraint designed to improve the fit of the vehicle's safety belt system. Some booster seats have a shoulder belt positioner, and some high-back booster seats have a five-point harness. A booster seat can also help a child to see out the window.

Q: How do child restraints work?

A: A child restraint system is any device designed for use in a motor vehicle to restrain, seat, or position children. A built-in child restraint system is a permanent part of the motor vehicle. An add-on child restraint system is a portable one, which is purchased by the vehicle's owner.

For many years, add-on child restraints have used the adult belt system in the vehicle. To help reduce the chance of injury, the child also has to be secured within the restraint. The vehicle's belt system secures the add-on child restraint in the vehicle, and the add-on child restraint's harness system holds the child in place within the restraint.

One system, the three-point harness, has straps that come down over each of the infant's shoulders and buckle together at the crotch. The five-point harness system has two shoulder straps, two hip straps and a crotch strap. A shield may take the place of hip straps. A T-shaped shield has shoulder straps that are attached to a flat pad which rests low against the child's body. A shelf- or armrest-type shield has straps that are attached to a wide, shelf-like shield that swings up or to the side.

When choosing a child restraint, be sure the child restraint is designed to be used in a vehicle. If it is, it will have a label saying that it meets federal motor vehicle safety standards.

Then follow the instructions for the restraint. You may find these instructions on the restraint itself or in a booklet, or both. These restraints use the belt system in your vehicle, but the child also has to be secured within the restraint to help reduce the chance of personal injury. When securing an add-on child restraint, refer to the instructions that come with the restraint which may be on the restraint itself or in a booklet, or both, and to this manual. The child restraint instructions are important, so if they are not available, obtain a replacement copy from the manufacturer.

Where to Put the Restraint

Accident statistics show that children are safer if they are restrained in the rear rather than the front seat. We, therefore, recommend that child restraints be secured in a rear seat, including an infant riding in a rear-facing infant seat, a child riding in a forward-facing child seat and an older child riding in a booster seat. *Never* put a rear-facing child restraint in the front passenger seat. Here's why:

⚠ CAUTION:

A child in a rear-facing child restraint can be seriously injured or killed if the right front passenger's air bag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating air bag. Always secure a rear-facing child restraint in a rear seat.

CAUTION: (Continued)

CAUTION: (Continued)

You may secure a forward-facing child restraint in the right front seat, but before you do, always move the front passenger seat as far back as it will go. It's better to secure the child restraint in a rear seat.

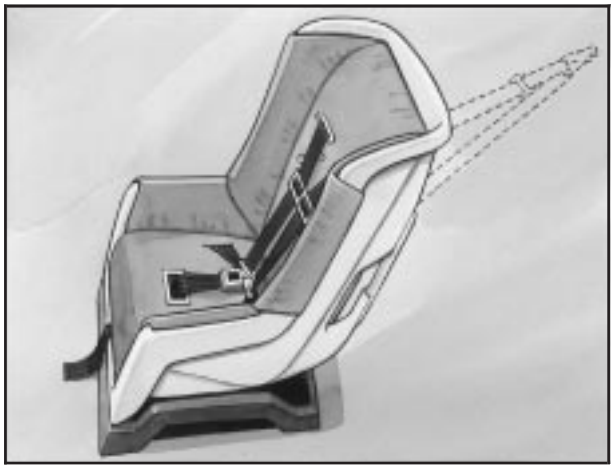
Wherever you install it, be sure to secure the child restraint properly.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in your vehicle – even when no child is in it.

Top Strap

Some child restraints have a top strap, or "top tether." It can help restrain the child restraint during a collision. For it to work, a top strap must be properly anchored to the vehicle. Some top strap-equipped child restraints are designed for use with or without the top strap being anchored. Others require the top strap always to be anchored. Be sure to read and follow the instructions for your child restraint. If yours requires that the top strap be anchored, do not use the restraint unless it is anchored properly.

If the child restraint does not have a top strap, one can be obtained, in kit form, for many child restraints. Ask the child restraint manufacturer whether or not a kit is available.



In Canada, the law requires that forward-facing child restraints have a top strap, and that the strap be anchored. In the United States, some child restraints also have a top strap. If your child restraint has a top strap, it should be anchored.

⚠ CAUTION:

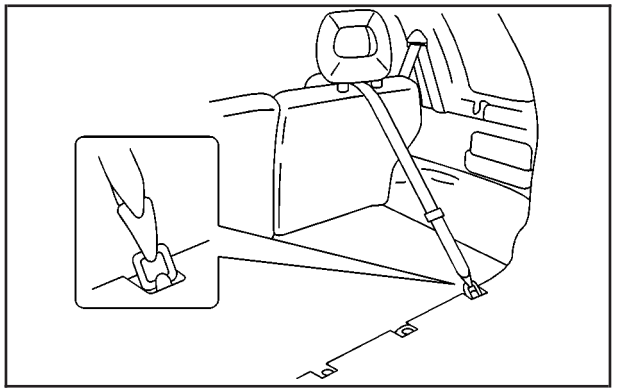
Each top tether bracket is designed to anchor only one child restraint. Attaching more than one child restraint to a single bracket could cause the anchor to come loose or even break during a crash. A child or others could be injured if this happens. To help prevent injury to people and damage to your vehicle, attach only one child restraint per bracket.

Anchor the top strap to one of the following anchor points. Be sure to use an anchor point located on the same side of the vehicle as the seating position where the child restraint will be placed.

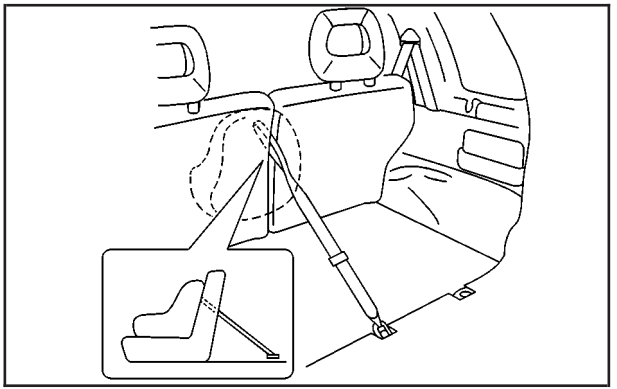
Raise the head restraint and route the top strap under it. See *Head Restraints on page 1-5*.

Once you have the top strap anchored, you will be ready to secure the child restraint itself. Tighten the top strap when and as the child restraint manufacturer's instructions say.

Top Strap Anchor Location



Your vehicle's top strap anchors for the rear seating positions are located on the floor of the rear cargo area, along the outside edge. If your vehicle is equipped with a luggage compartment cover, remove it before using the top strap. When routing the top strap at an outboard seating position, pass it between the head restraint and the rear seatback.

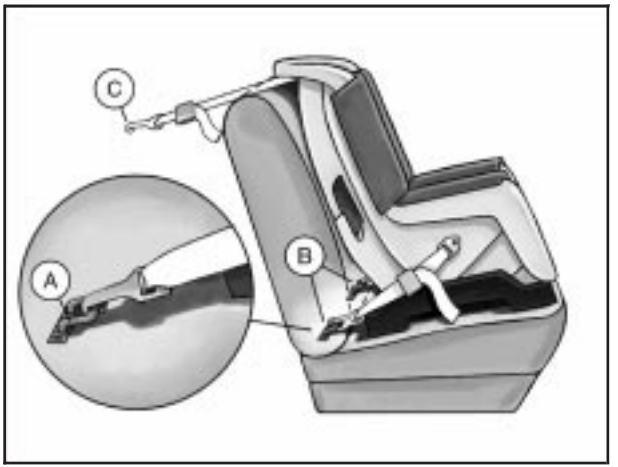


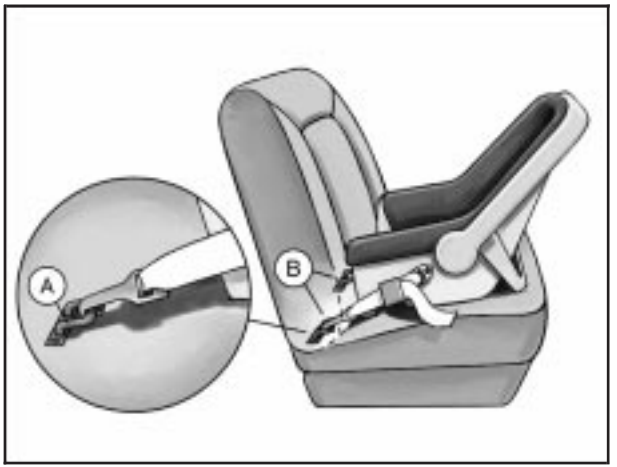
When routing the top strap at the center seating position, be sure to pass it between the rear seatbacks if the top strap connection to the child restraint is below the top of the rear seatback.

Lower Anchorages and Top Tethers for Children (LATCH System)

Your vehicle has the LATCH system. You will find anchors (A) for the two rear outside seat positions.

This system, designed to make installation of child restraints easier, does not use the vehicle's safety belts. Instead, it uses vehicle anchors (A, B) and child restraint attachments to secure the restraints. Some restraints also use another vehicle anchor to secure a top tether strap (C).





In order to use the LATCH system in your vehicle, you need a child restraint designed for that system.

To assist you in locating the lower anchors for this child restraint system, each seating position with the LATCH system has a label on the seatback at each lower anchor position.

The labels are located near the base of the seatbacks.

⚠ CAUTION:

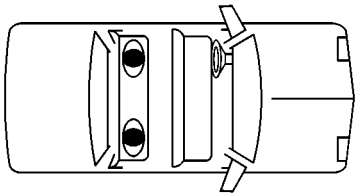
If a LATCH-type child restraint isn't attached to its anchorage points, the restraint won't be able to protect the child correctly. In a crash, the child could be seriously injured or killed. Make sure that a LATCH-type child restraint is properly installed using the anchorage points, or use the vehicle's safety belts to secure the restraint. See "Securing a Child Restraint Designed for the LATCH System" or "Securing a Child Restraint in a Rear Outside Seat Position" in the Index for information on how to secure a child restraint in your vehicle.

Securing a Child Restraint Designed for the LATCH System

1. Find the anchors for the seating position you want to use, where the bottom of the seatback meets the back of the seat cushion.
2. Put the child restraint on the seat.
3. Attach the anchor points on the child restraint to the anchors in the vehicle. The child restraint instructions will show you how.
4. If the child restraint is forward-facing, attach the top strap to the top strap anchor. See *Top Strap on page 1-41*. Tighten the top strap according to the child restraint instructions.
5. Push and pull the child restraint in different directions to be sure it is secure.

To remove the child restraint, simply unhook the top strap from the top tether anchor and then disconnect the anchor points.

Securing a Child Restraint in a Rear Outside Seat Position



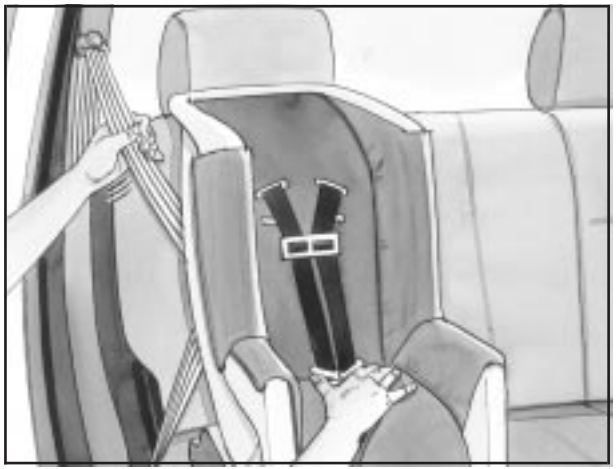
If your child restraint is equipped with the LATCH system, see *Lower Anchorages and Top Tethers for Children (LATCH System) on page 1-44*.

You'll be using the lap-shoulder belt. See *Top Strap on page 1-41* if the child restraint has one. Be sure to follow the instructions that came with the child restraint. Secure the child in the child restraint when and as the instructions say.

1. Put the restraint on the seat.
2. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.

3. Buckle the belt. Make sure the release button is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

4. Pull the rest of the shoulder belt all the way out of the retractor to set the lock.

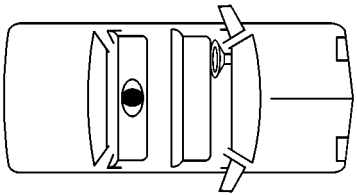


5. To tighten the belt, feed the shoulder belt back into the retractor while you push down on the child restraint. If you're using a forward-facing child restraint, you may find it helpful to use your knee to push down on the child restraint as you tighten the belt.
6. Push and pull the child restraint in different directions to be sure it is secure.

To remove the child restraint, just unbuckle the vehicle's safety belt and let it go back all the way. The safety belt will move freely again and be ready to work for an adult or larger child passenger.

Securing a Child Restraint in a Center Rear Seat Position

4–Door Models



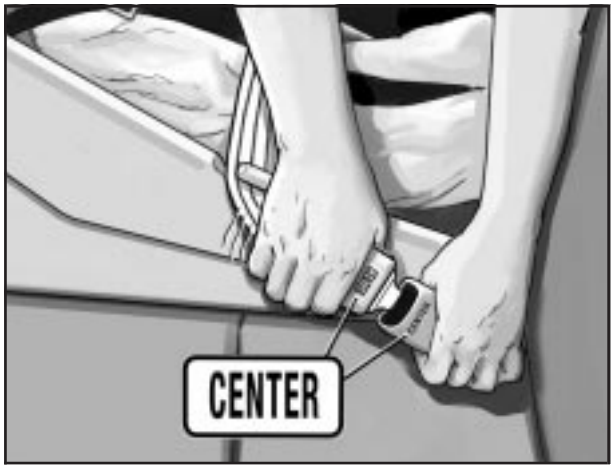
You'll be using the lap belt.

The word "CENTER" is on both the buckle and latch plate. Also, the center buckle and latch plate are a different color than the two outboard buckles and latch plates.

Be sure to follow the instructions that came with the child restraint. Secure the child restraint when and as the instructions say.

See *Top Strap on page 1-41* if the child has one.

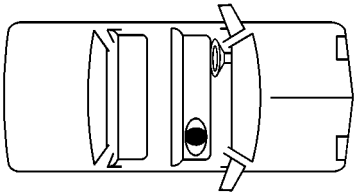
1. Make the belt as long as possible by tilting the latch plate and pulling it along the belt.
2. Put the restraint on the seat.
3. Run the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.



4. Buckle the belt. Make sure the release button is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.
5. To tighten the belt, pull its free end while you push down on the child restraint. If you're using a forward-facing child restraint, you may find it helpful to use your knee to push the child restraint as you tighten the belt.
6. Push and pull the child restraint in different directions to be sure it is secure.

To remove the child restraint, just unbuckle the vehicle's safety belt. It will be ready to work for an adult or larger child passenger.

Securing a Child Restraint in the Right Front Seat Position



Your vehicle has a right front passenger air bag. *Never* put a rear-facing child restraint in this seat. Here's why:

⚠ CAUTION:

A child in a rear-facing child restraint can be seriously injured or killed if the right front passenger's air bag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating air bag. Always secure a rear-facing child restraint in a rear seat.

Although a rear seat is a safer place, you can secure a forward-facing child restraint in the right front seat.

You'll be using the lap-shoulder belt. See *Top Strap on page 1-41* if the child restraint has one. Be sure to follow the instructions that came with the child restraint. Secure the child in the child restraint when and as the instructions say.

1. Because your vehicle has a right front passenger air bag, always move the seat as far back as it will go before securing a forward-facing child restraint. See *Manual Seats on page 1-2*.
2. Put the restraint on the seat.
3. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.

4. Buckle the belt. Make sure the release button is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

5. Pull the rest of the shoulder belt all the way out of the retractor to set the lock.

6. To tighten the belt, feed the shoulder belt back into the retractor while you push down on the child restraint. You may find it helpful to use your knee to push down on the child restraint as you tighten the belt.
7. Push and pull the child restraint in different directions to be sure it is secure.

To remove the child restraint, just unbuckle the vehicle's safety belt and let it go back all the way. The safety belt will move freely again and be ready to work for an adult or larger child passenger.

Supplemental Restraint System (SRS)

This part explains the Supplemental Restraint System (SRS) or air bag system.

Your vehicle has air bags – one air bag for the driver and another air bag for the right front passenger.

Frontal air bags are designed to help reduce the risk of injury from the force of an inflating air bag. But these air bags must inflate very quickly to do their job and comply with federal regulations.

Here are the most important things to know about the air bag system:

⚠ CAUTION:

You can be severely injured or killed in a crash if you aren't wearing your safety belt — even if you have air bags. Wearing your safety belt during a crash helps reduce your chance of hitting things inside the vehicle or being ejected from it. Air bags are designed to work with safety belts, but don't replace them. Air bags are designed to deploy only in moderate to severe frontal and near frontal crashes. They aren't designed to inflate at all in rollover, rear or low-speed frontal crashes, or in many side crashes. And, for some unrestrained occupants, air bags may provide less protection in frontal crashes than more forceful air bags have provided in the past. Everyone in your vehicle should wear a safety belt properly — whether or not there's an air bag for that person.

⚠ CAUTION:

Air bags inflate with great force, faster than the blink of an eye. If you're too close to an inflating air bag, as you would be if you were leaning forward, it could seriously injure you. Safety belts help keep you in position before and during a crash. Always wear your safety belt, even with air bags. The driver should sit as far back as possible while still maintaining control of the vehicle.

⚠ CAUTION:

Anyone who is up against, or very close to, any air bag when it inflates can be seriously injured or killed. Air bags plus lap-shoulder belts offer the best protection for adults, but not for young children and infants.

CAUTION: (Continued)

CAUTION: (Continued)

Neither the vehicle's safety belt system nor its air bag system is designed for them. Young children and infants need the protection that a child restraint system can provide. Always secure children properly in your vehicle.
To read how, see *Older Children on page 1-31* and *Infants and Young Children on page 1-34*.

There is an air bag readiness light on the instrument panel, which shows AIR BAG.

The system checks the air bag electrical system for malfunctions. The light tells you if there is an electrical problem. See *Air Bag Readiness Light on page 3-27* for more information.

Where Are the Air Bags?

The driver's air bag is in the middle of the steering wheel.

The right front passenger's air bag is in the instrument panel on the passenger's side.

> **⚠ CAUTION:**
>
> **If something is between an occupant and an air bag, the bag might not inflate properly or it might force the object into that person causing severe injury or even death. The path of an inflating air bag must be kept clear. Don't put anything between an occupant and an air bag, and don't attach or put anything on the steering wheel hub or on or near any other air bag covering.**

When Should an Air Bag Inflate?

An air bag is designed to inflate in a moderate to severe frontal, or near-frontal crash. The air bag will inflate only if the impact speed is above the system's designed "threshold level." If your vehicle goes straight into a wall that doesn't move or deform, the threshold level is about 9 to 13 mph (14 to 21 km/h). The threshold level can vary, however, with specific vehicle design, so that it can be somewhat above or below this range. If your vehicle strikes something that will move or deform, such as a parked car, the threshold level will be higher. The air bag is not designed to inflate in rollovers, rear impacts, or in many side impacts because inflation would not help the occupant.

In any particular crash, no one can say whether an air bag should have inflated simply because of the damage to a vehicle or because of what the repair costs were. Inflation is determined by the angle of the impact and how quickly the vehicle slows down in frontal or near-frontal impacts.

The air bag system is designed to work properly under a wide range of conditions, including off-road usage. Observe safe driving speeds, especially on rough terrain. As always, wear your safety belt. See *Off-Road Driving with Your Four-Wheel-Drive Vehicle on page 4-16* for more tips on off-road driving.

What Makes an Air Bag Inflate?

In an impact of sufficient severity, the air bag sensing system detects that the vehicle is in a crash. The sensing system triggers a release of gas from the inflator, which inflates the air bag. The inflator, air bag, and related hardware are all part of the air bag modules inside the steering wheel and in the instrument panel in front of the right front passenger.

How Does an Air Bag Restrain?

In moderate to severe frontal or near-frontal collisions, even belted occupants can contact the steering wheel or the instrument panel. Air bags supplement the protection provided by safety belts. Air bags distribute the force of the impact more evenly over the occupant's upper body, stopping the occupant more gradually. But air bags would not help you in many types of collisions, including rollovers, rear impacts and many side impacts, primarily because an occupant's motion is not toward those air bags. Air bags should never be regarded as anything more than a supplement to safety belts, and then only in moderate to severe frontal or near-frontal collisions.

What Will You See After an Air Bag Inflates?

After the air bag inflates, it quickly deflates, so quickly that some people may not even realize the air bag inflated. Some components of the air bag module – the steering wheel hub for the driver's air bag, or the instrument panel for the right front passenger's bag – will be hot for a short time. The parts of the bag that come into contact with you may be warm, but not too hot to touch. There will be some smoke and dust coming from the vents in the deflated air bags.

Air bag inflation does not prevent the driver from seeing or being able to steer the vehicle, nor does it stop people from leaving the vehicle.

⚠ CAUTION:

When an air bag inflates, there is dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone in the vehicle should get out as soon as it is safe to do so. If you have breathing problems but can't get out of the vehicle after an air bag inflates, then get fresh air by opening a window or a door. If you experience breathing problems following an air bag deployment, you should seek medical attention.

In many crashes severe enough to inflate the air bag, windshields are broken by vehicle deformation. Additional windshield breakage may also occur from the right front passenger air bag.

- Air bags are designed to inflate only once. After an air bag inflates, you will need some new parts for your air bag system. If you do not get them, the air bag system will not be there to help protect you in another crash. A new system will include air bag modules and possibly other parts. The service manual for your vehicle covers the need to replace other parts.
- Your vehicle is equipped with a crash sensing and diagnostic module, which records information about the air bag system. The module records information about the readiness of the system, when the system commands air bag inflation and driver's safety belt usage at deployment.
- Let only qualified technicians work on your air bag systems. Improper service can mean that an air bag system will not work properly. See your dealer for service.

Notice: **If you damage the covering for the driver's or the right front passenger's air bag, the bag may not work properly. You may have to replace the air bag module in the steering wheel or both the air bag module and the instrument panel for the right front passenger's air bag. Do not open or break the air bag coverings.**

If your vehicle ever gets into a lot of water – such as water up to the carpeting or higher – or if water enters your vehicle and soaks the carpet, the air bag controller can be soaked and ruined. If this ever happens, and then you start your vehicle, the damage could make the air bags inflate, even if there is no crash. You would have to replace the air bags as well as the sensors and related parts. If your vehicle is ever in a flood, or if it is exposed to water that soaks the carpet, you can avoid needless repair costs by turning off the vehicle immediately and disconnecting the battery cables. Do not let anyone start the vehicle under any circumstances. See your dealer for service.

Servicing Your Air Bag-Equipped Vehicle

Air bags affect how your vehicle should be serviced. There are parts of the air bag system in several places around your vehicle. You don't want the system to inflate while someone is working on your vehicle. Your dealer and the service manual have information about servicing your vehicle and the air bag system. To purchase a service manual, see *Service Publications Ordering Information on page 7-11*.

⚠ CAUTION:

For up to 15 seconds after the ignition key is turned off and the battery is disconnected, an air bag can still inflate during improper service.

CAUTION: (Continued)

CAUTION: (Continued)

You can be injured if you are close to an air bag when it inflates. Avoid wires wrapped with yellow tape or yellow connectors. They are probably part of the air bag system. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.

The air bag system does not need regular maintenance.

Adding Equipment to Your Air Bag-Equipped Vehicle

Q: If I add a push bumper or a bicycle rack to the front of my vehicle, will it keep the air bags from working properly?

A: As long as the push bumper or bicycle rack is attached to your vehicle so that the vehicle's basic structure isn't changed, it's not likely to keep the air bags from working properly in a crash.

Q: Is there anything I might add to the front of the vehicle that could keep the air bags from working properly?

A: Yes. If you add things that change your vehicle's frame, bumper system, front end sheet metal or height, they may keep the air bag system from working properly. Also, the air bag system may not work properly if you relocate any of the air bag sensors. If you have any questions about this, you should contact Customer Assistance before you modify your vehicle. The phone numbers and addresses for Customer Assistance are in Step Two of the *Customer Satisfaction Procedure on page 7-2*.

Restraint System Check

Checking Your Restraint Systems

Now and then, make sure the safety belt reminder light and all your belts, buckles, latch plates, retractors and anchorages are working properly. Look for any other loose or damaged safety belt system parts. If you see anything that might keep a safety belt system from doing its job, have it repaired.

Torn or frayed safety belts may not protect you in a crash. They can rip apart under impact forces. If a belt is torn or frayed, get a new one right away.

Also look for any opened or broken air bag covers, and have them repaired or replaced. (The air bag system does not need regular maintenance.)

Replacing Restraint System Parts After a Crash

⚠ CAUTION:

A crash can damage the restraint systems in your vehicle. A damaged restraint system may not properly protect the person using it, resulting in serious injury or even death in a crash. To help make sure your restraint systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

If you've had a crash, do you need new belt or LATCH system parts?

After a very minor collision, nothing may be necessary. But if the belts were stretched, as they would be if worn during a more severe crash, then you need new parts.

If the LATCH system was being used during a more severe crash, you may need new LATCH system parts.

If belts are cut or damaged, replace them. Collision damage also may mean you will need to have LATCH system, safety belt or seat parts repaired or replaced. New parts and repairs may be necessary even if the belt or LATCH system wasn't being used at the time of the collision.

If an air bag inflates, you'll need to replace air bag system parts. See the part on the air bag system earlier in this section.

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Keys

⚠ CAUTION:

Leaving children in a vehicle with the ignition key is dangerous for many reasons. A child or others could be badly injured or even killed.

They could operate the power windows or other controls or even make the vehicle move.

Do not leave the keys in a vehicle with children.

One key is used for the ignition, the doors and all other locks.

When a new vehicle is delivered, the dealer removes the metal plate from the key ring and gives it to the first owner.

The metal plate has a code on it that tells your dealer or a qualified locksmith how to make extra keys. Keep the code in a safe place. If you lose your keys, you'll be able to have new ones made easily using this code.

See *Roadside Assistance Program on page 7-6* for more information.

Notice: **If you ever lock your keys in your vehicle, you may have to damage the vehicle to get in. Be sure you have spare keys.**

Remote Keyless Entry System

If equipped, the remote keyless entry system operates on a radio frequency subject to Federal Communications Commission (FCC) Rules and with Industry Canada.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

Changes or modifications to this system by other than an authorized service facility could void authorization to use this equipment.

At times you may notice a decrease in range. This is normal for any remote keyless entry system. If the transmitter does not work or if you have to stand closer to your vehicle for the transmitter to work, try this:

- Check the distance. You may be too far from your vehicle. You may need to stand closer during rainy or snowy weather.
- Check the location. Other vehicles or objects may be blocking the signal. Take a few steps to the left or right, hold the transmitter higher, and try again.
- Check to determine if battery replacement or resynchronization is necessary. See “Battery Replacement” and “Resynchronization” under “Remote Keyless Entry System Operation” following this section.
- If you are still having trouble, see your dealer or a qualified technician for service.

Remote Keyless Entry System Operation

If your vehicle has this feature, you can lock and unlock your doors from about 3 feet (1 m) up to 30 feet (9 m) away using the remote keyless entry transmitter supplied with your vehicle.

With the remote keyless entry system, your vehicle will have an entry lighting feature. See “Entry Lighting” under *Interior Lamps on page 3-15*.

The following functions are available with the remote keyless entry system:

LOCK: Press LOCK to lock all doors.

UNLOCK: Press UNLOCK to unlock the driver’s door. If the UNLOCK button is pressed again within five seconds, all remaining doors will be unlocked.

Matching Transmitter(s) to Your Vehicle

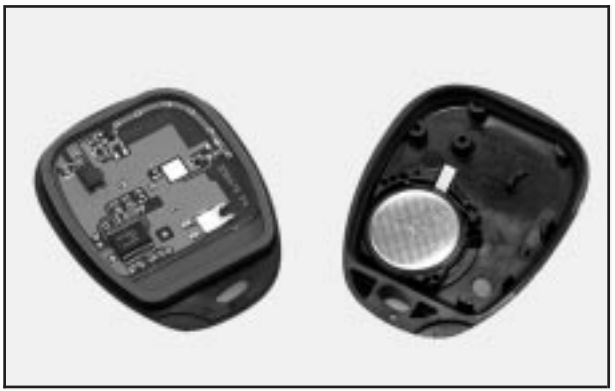
Each remote keyless entry transmitter is coded to prevent another transmitter from unlocking your vehicle. If a transmitter is lost or stolen, a replacement can be purchased through your dealer. Remember to bring any remaining transmitters with you when you go to your dealer. When the dealer matches the replacement transmitter to your vehicle, any remaining transmitters must also be matched. Once your dealer has coded the new transmitter, the lost transmitter will not unlock your vehicle. Each vehicle can have a maximum of two transmitters matched to it.

Battery Replacement

Under normal use, the battery in your remote keyless entry transmitter should last about two years.

You can tell the battery is weak if the transmitter won't work at the normal range in any location. If you have to get close to your vehicle before the transmitter works, it's probably time to change the battery.

Notice: **When replacing the battery, use care not to touch any of the circuitry. Static from your body transferred to these surfaces may damage the transmitter.**



To replace the battery in the transmitter do the following:

1. Use a coin or similar object to separate the bottom half from the top half of the transmitter.
2. Remove the battery and replace it with the new one. Make sure the positive side of the battery faces down. For battery replacement, use a 3-volt battery, type CR2032 or equivalent.
3. Read the instructions inside the case.
4. Put the two halves back together. Make sure the cover is on tight so water won't get in.
5. Check the operation of the transmitter with your vehicle. If the transmitter does not work, try resynchronizing the transmitter with the receiver. See "Resynchronization" following.

Resynchronization

Your remote keyless entry system is equipped with a security system that prevents anyone from recording and playing back your signal. The transmitter does not send the same signal twice to the receiver. The receiver will not respond to a signal that has been sent to it more than once.

To resynchronize your transmitter and receiver, follow these directions:

1. Stand close to your vehicle.
2. Press and hold the LOCK and UNLOCK buttons on the transmitter at the same time for at least seven seconds.

   During this time, the doors should lock and unlock once. This confirms the resynchronization. If the doors do not lock and unlock, see your dealer for service.

Doors and Locks

Door Locks

⚠ CAUTION:

Unlocked doors can be dangerous.

- **Passengers — especially children — can easily open the doors and fall out of a moving vehicle. When a door is locked, the handle will not open it. You increase the chance of being thrown out of the vehicle in a crash if the doors are not locked. So, wear safety belts properly and lock the doors whenever you drive.**
- **Young children who get into unlocked vehicles may be unable to get out. A child can be overcome by extreme heat and can suffer permanent injuries or even death from heat stroke. Always lock your vehicle whenever you leave it.**
- **Outsiders can easily enter through an unlocked door when you slow down or stop your vehicle. Locking your doors can help prevent this from happening.**

There are several ways to lock and unlock your vehicle.

From the outside, use your key. To lock the door, turn the key toward the front of the vehicle. To unlock the door, turn the key toward the rear.

To lock the door from the inside, push down on the manual lock rod located on the door. To unlock it, pull up on the manual lock rod.

If your vehicle is equipped with the remote keyless entry system, you can use the transmitter to lock and unlock the doors. See “Remote Keyless Entry System” previously in this section.

Power Door Locks

If your four-door model has power door locks, the switch is located on the driver's door armrest.

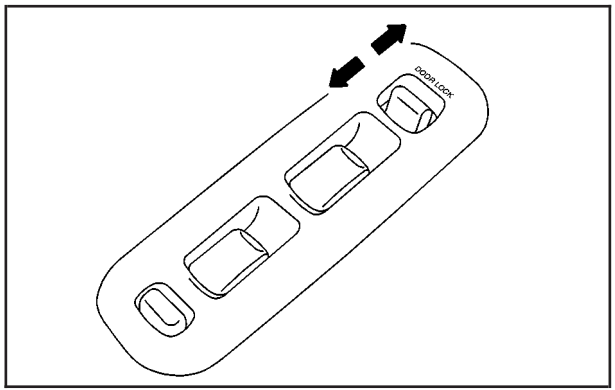
To lock all the doors and the tailgate, press the right side of the switch. To unlock the doors and the tailgate, press the left side of the switch.

Four-Door Models

You can lock all doors from the outside by inserting the key into either front door lock cylinder, and turning it toward the front of the vehicle.

If your vehicle is equipped with the remote keyless entry system, you can also lock and unlock all doors using the remote keyless entry transmitter. See *Remote Keyless Entry System Operation on page 2-5*.

If your two-door model has power door locks, the switch is located on the driver's door armrest.



Two-Door Models

To lock both side doors, push the switch forward. To unlock the doors pull the switch rearward. The tailgate does not have a power lock, and will need to be manually locked and unlocked with a key.

You can lock both side doors from the outside by inserting the key into either front door lock cylinder, and turning it toward the front of the vehicle.

If your vehicle is equipped with the remote keyless entry system, you can also lock and unlock the side doors using the remote keyless entry transmitter. See *Remote Keyless Entry System Operation on page 2-5*.

Rear Door Security Locks

Your vehicle may be equipped with rear door security locks that help prevent passengers from opening the rear doors of your vehicle from the inside.

The rear security door locks are located on the inside of the rear doors.

Using the Rear Door Security Lock

1. Move the lever down to engage the lock.
2. Close the door.
3. Do the same to the other rear door lock.

The rear doors of your vehicle cannot be opened from the inside when this feature is in use.

Opening a Rear Door When the Security Lock Is On

If you want to open a rear door when the security lock is on, unlock the door, then open the door from the outside.

If you don't cancel the security lock feature, adults or older children who ride in the rear won't be able to open the rear door from the inside. You should let adults and older children know how these security locks work, and how to cancel the locks.

Canceling a Rear Door Security Lock

1. Unlock the door from the inside and open the door from the outside.
2. Move the lever up to disengage the lock.
3. Do the same for the other rear door.

The rear door locks will now work normally.

Leaving Your Vehicle

If you are leaving the vehicle, take your keys, open your door and set the locks from inside. Then get out and close the door.

Tailgate

⚠ CAUTION:

It can be dangerous to drive with the tailgate open because carbon monoxide (CO) gas can come into your vehicle. You can't see or smell CO. It can cause unconsciousness and even death. If you must drive with the tailgate open or if electrical wiring or other cable connections

CAUTION: (Continued)

CAUTION: (Continued)

must pass through the seal between the body and the tailgate:

- **Make sure all other windows are shut.**
- **Turn the fan on your heating or cooling system to its highest speed and select the control setting that will force outside air into your vehicle. See ″Climate Control System″ in the Index.**
- **If you have air outlets on or under the instrument panel, open them all the way. See ″Engine Exhaust″ in the Index.**

Tailgate Lock Release

Use your key to lock or unlock your tailgate.

If you have a convertible, you can still open or close the tailgate with the rear window closed.

Windows

⚠ CAUTION:

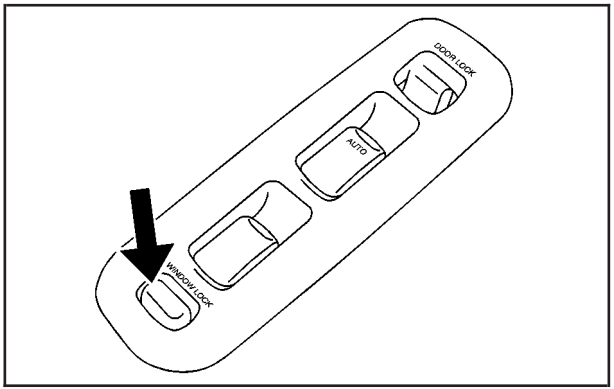
Leaving children in a vehicle with the windows closed is dangerous. A child can be overcome by the extreme heat and can suffer permanent injuries or even death from heat stroke. Never leave a child alone in a vehicle, especially with the windows closed in warm or hot weather.

Manual Windows

Use the window crank to open and close each window.

Power Windows

Four-Door Models



Two-Door Models

With power windows, switches on the driver's door operate each window while the ignition is on. Push down on the front of the switch to lower a window and lift up the front of the switch to raise a window.

There is an individual control near each window.

Express-Down Window

The AUTO switch for the driver's window has an express down feature. To use express down, push the switch all the way down. Release the switch and the window will lower completely. Pull up on the switch lightly and release it to stop the window partway.

Window Lock

On four-door models, press the right side of the switch to activate the lock feature. The passenger windows will not operate while this feature is active. Press the left side of the switch to return to normal window operation.

On two-door models, press the WINDOW LOCK button to activate the lock feature. The passenger window will not operate while this feature is active. Press the button again to return to normal window operation.

On both models, while the window lock switch is engaged, the driver's window will still operate but all passenger window switches will not operate.

Sun Visors

To block out glare, you can swing down the visors.

You can also swing them to the side. The visors may have extensions to give additional sun blockage.

Visor Vanity Mirror

If your vehicle has this feature, pull down the visor to expose the passenger's side vanity mirror.

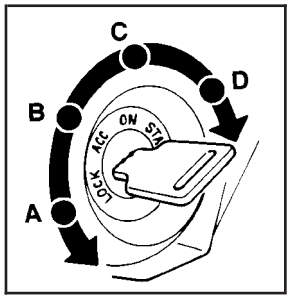
Starting and Operating Your Vehicle

New Vehicle Break-In

Notice: **Your vehicle does not need an elaborate "break-in." But it will perform better in the long run if you follow these guidelines:**

- **Keep your speed at 55 mph (88 km/h) or less for the first 500 miles (805 km).**
- **Do not drive at any one speed — fast or slow — for the first 500 miles (805 km). Do not make full-throttle starts.**
- **Avoid making hard stops for the first 200 miles (322 km) or so. During this time your new brake linings are not yet broken in. Hard stops with new linings can mean premature wear and earlier replacement. Follow this breaking-in guideline every time you get new brake linings.**
- **Do not tow a trailer during break-in. See *Towing a Trailer on page 4-53* for more information.**

Ignition Positions



With the key in the ignition switch, you can turn it to four different positions.

LOCK (A): This is the only position from which you can remove the key. This position locks your steering wheel, ignition and automatic transmission.

If you have an automatic transmission, the ignition switch can't be turned to LOCK unless the shift lever is in PARK (P).

⚠ CAUTION:

On manual transmission vehicles, turning the key to LOCK will lock the steering column and result in a loss of ability to steer the vehicle. This could cause a collision. If you need to turn the engine off while the vehicle is moving, turn the key only to ACC. Do not push the key in while the vehicle is moving.

Notice: **Using a tool to force the key from the ignition switch could cause damage or break the key. Use the correct key and turn the key only with your hand. Make sure the key is all the way in. If it is, turn the steering wheel left and right while you turn the key hard. If none of this works, then your vehicle needs service.**

ACC (ACCESSORY) (B): This is the position in which you can operate your electrical accessories or items plugged into the accessory power outlets. It also unlocks the steering wheel and ignition. Use this position if your vehicle must be pushed or towed.

ON (C): This is the position that the switch returns to after you start your engine and release the switch. The switch stays in ON when the engine is running. But even when the engine is not running, you can use ON to operate your electrical accessories and to display some instrument panel cluster warning and indicator lights.

START (D): This is the position that starts the engine. When the engine starts, release the key. The ignition switch will return to ON for normal driving.

When the engine is not running, ACC and ON allow you to operate your electrical accessories, such as the radio or items plugged into the accessory power outlets.

A warning tone will sound if you open the driver's door when the ignition is in ACC or LOCK and the key is in the ignition.

Starting Your Engine

Automatic Transmission

Move your shift lever to PARK (P) or NEUTRAL (N). Your engine won't start in any other position — that's a safety feature. To restart when you're already moving, use NEUTRAL (N) only.

Notice: **Do not try to shift to PARK (P) if your vehicle is moving. If you do, you could damage the transmission. Shift to PARK (P) only when your vehicle is stopped.**

Manual Transmission

The gear selector should be in NEUTRAL and the parking brake engaged. Hold the clutch pedal to the floor and start the engine. Your vehicle won't start if the clutch pedal is not all the way down – that's a safety feature.

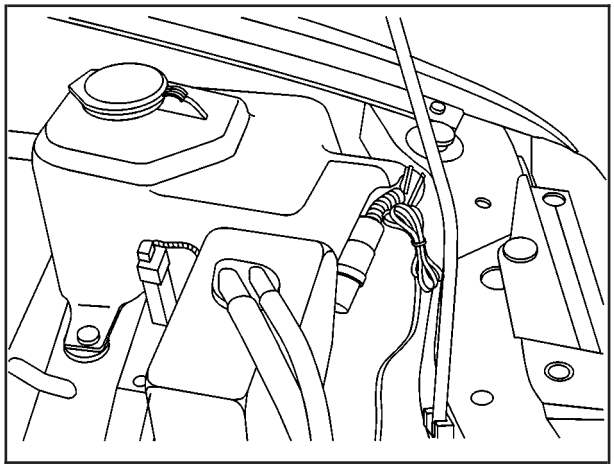
1. With your foot off the accelerator pedal, turn your ignition key to START. When the engine starts, let go of the key.

Notice: **Holding your key in START for longer than 15 seconds at a time will cause your battery to be drained much sooner. And the excessive heat can damage your starter motor. Wait about 15 seconds between each try to help avoid draining your battery or damaging your starter.**

2. If it doesn't start, push the accelerator pedal one-third of the way down. Hold it there, for not more than 15 seconds at a time, while you turn your key to START. When the engine starts, let go of the key and release the pedal. Wait about 15 seconds between each try.
3. If your engine still won't start (or starts but then stops), it could be flooded with too much gasoline. Try pushing your accelerator pedal all the way to the floor and holding it there as you hold the key in START for about three seconds. If the vehicle starts briefly but then stops again, do the same thing, but this time keep the pedal down for five or six seconds. This clears the extra gasoline from the engine.

Notice: **Your engine is designed to work with the electronics in your vehicle. If you add electrical parts or accessories, you could change the way the engine operates. Before adding electrical equipment, check with your dealer. If you do not, your engine might not perform properly.**

Engine Coolant Heater



If your vehicle has this feature, in very cold weather, 0°F (18°C) or colder, the engine coolant heater can help. You'll get easier starting and better fuel economy during engine warm-up. Usually, the coolant heater should be plugged in a minimum of four hours prior to starting your vehicle. At temperatures above 32°F (0°C), use of the coolant heater is not required.

To Use the Engine Coolant Heater

1. Turn off the engine.
2. Open the hood and unwrap the electrical cord. It is located at the front of the engine compartment on the driver's side.

⚠ CAUTION:

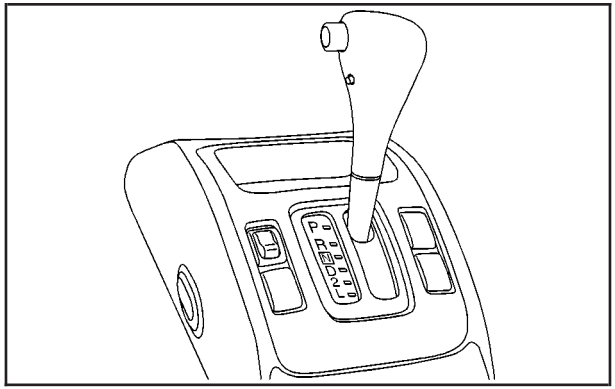
Plugging the cord into an ungrounded outlet could cause an electrical shock. Also, the wrong kind of extension cord could overheat and cause a fire. You could be seriously injured. Plug the cord into a properly grounded three-prong 110-volt AC outlet. If the cord will not reach, use a heavy-duty three-prong extension cord rated for at least 15 amps.

3. Plug it into a normal, grounded 110-volt AC outlet.
4. Before starting the engine, be sure to unplug and store the cord as it was before to keep it away from moving engine parts. If you don't, it could be damaged.

How long should you keep the coolant heater plugged in? The answer depends on the outside temperature, the kind of oil you have, and some other things. Instead of trying to list everything here, we ask that you contact your dealer in the area where you'll be parking your vehicle. The dealer can give you the best advice for that particular area.

Automatic Transmission Operation

There are several different positions for your shift lever.



PARK (P): This position locks your rear wheels. It's the best position to use when you start your engine because your vehicle can't move easily.

⚠ CAUTION:

It is dangerous to get out of your vehicle if the shift lever is not fully in PARK (P) with the parking brake firmly set. Your vehicle can roll.

Do not leave your vehicle when the engine is running unless you have to. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure your vehicle will not move, even when you are on fairly level ground, always set your parking brake and move the shift lever to PARK (P). See "Shifting Into Park (P)" in the Index. If you are pulling a trailer, see "Towing a Trailer" in the Index.

⚠ CAUTION:

If you have four-wheel drive, your vehicle will be free to roll — even if your shift lever is in PARK (P) — if your transfer case is in NEUTRAL. So, be sure the transfer case is in a drive gear, two-wheel high (2H) or four-wheel high (4H) or four-wheel low (4L) — not in NEUTRAL. See "Shifting into Park (P)" in the Index.

Ensure the shift lever is fully in PARK (P) before starting the engine. Your vehicle has an automatic transmission shift lock control system. You have to fully apply your regular brakes before you can shift from PARK (P) when the ignition key is in ON. If you cannot shift out of PARK (P), ease pressure on the shift lever — push the shift lever all the way into PARK (P) and release the shift lever button as you maintain brake application. Then press the shift lever button and move the shift lever into the gear you wish. See *Shifting Out of Park (P) on page 2-30*.

REVERSE (R): Use this gear to back up.

Notice: **Shifting to REVERSE (R) while your vehicle is moving forward could damage the transmission. The repairs would not be covered by your warranty. Shift to REVERSE (R) only after your vehicle is stopped.**

To rock your vehicle back and forth to get out of snow, ice or sand without damaging your transmission, *see If You Are Stuck: In Sand, Mud, Ice or Snow on page 4-44*.

NEUTRAL (N): In this position, your engine doesn't connect with the wheels. To restart when you're already moving, use NEUTRAL (N) only. Also, use NEUTRAL (N) when your vehicle is being towed.

⚠ CAUTION:

Shifting into a drive gear while your engine is running at high speed is dangerous. Unless your foot is firmly on the brake pedal, your vehicle could move very rapidly. You could lose control and hit people or objects. Do not shift into a drive gear while your engine is running at high speed.

Notice: **Shifting our of PARK (P) or NEUTRAL (N) with the engine racing may damage the transmission. The repairs would not be covered by your warranty. Be sure the engine is not racing when shifting your vehicle.**

DRIVE (D): This position is for normal driving.

If you need more power for passing, and you're:

- Going less than about 15 mph (25 km/h), push your accelerator pedal about halfway down.
- Going about 15 mph (25 km/h) or more, push your accelerator pedal all the way down.

  You'll shift down to the next gear and have more power.

SECOND (2): This position gives you more power but lower fuel economy. You can use SECOND (2) on hills. It can help control your speed as you go down steep mountain roads, but then you would also want to use your brakes off and on. In this position, if the power mode selector switch is turned to P, the transmission will not downshift into LOW (L). See "Power Mode Selector Switch" later in this section.

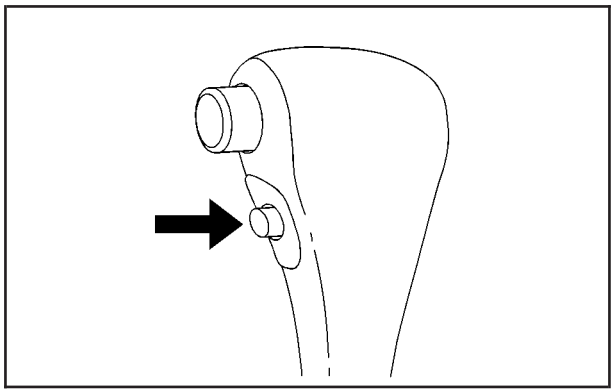
Don't shift into SECOND (2) unless you are going slower than 63.4 mph (102 km/h) with the transfer case in FOUR-WHEEL HIGH (4H) and TWO-WHEEL HIGH (2H), or 34.9 mph (56.2 km/h) with the transfer case in FOUR-WHEEL LOW (4L). If you move the shift lever to a lower gear while driving faster than the maximum allowable speed for the lower gear, the transmission will not downshift until your speed drops below the maximum speed for the lower gear.

LOW (L): This position gives you even more power but lower fuel economy than SECOND (2). You can use it on very steep hills, or in deep snow or mud. If the shift lever is put in LOW (L), the transmission won't shift into low gear until the vehicle is going slow enough.

Don't shift into LOW (L) at speeds above 28.0 mph (45.0 km/h) with the transfer case in FOUR-WHEEL HIGH (4H) or TWO-WHEEL HIGH (2H), or at speeds above 15.4 mph (24.8 km/h) with the transfer case in FOUR-WHEEL LOW (4L). If you move the shift lever to a lower gear while driving faster than the maximum allowable speed for the lower gear, the transmission will not downshift until your speed drops below the maximum speed for the lower gear.

Notice: **Spinning the tires or holding the vehicle in one place on a hill using only the accelerator pedal may damage the transaxle. If you are stuck, do not spin the tires. When stopping on a hill, use the brakes to hold the vehicle in place.**

Overdrive Off



If your vehicle has this feature, the overdrive-off button is located on the left side of the shift lever. When operating under normal conditions, the vehicle will automatically default to overdrive when initially started until it is disengaged. If overdrive is turned off and the vehicle is turned off, when the vehicle is restarted, overdrive will automatically turn back on. By operating the overdrive off button, with the ignition in the ON position, the four-speed automatic transmission (three-speed plus overdrive) can be converted to a three-speed automatic transmission. While in the three-speed mode, the transmission will not shift into the overdrive position.

To convert the transmission to the three-speed mode, press in the overdrive-off button and release it. The OD/OFF indicator light on the instrument panel cluster will come on. The overdrive-off button is for normal driving, however, it also offers more power and lower fuel economy than driving in the overdrive position. Here are some times you might choose to drive with the overdrive-off button engaged:

- When driving on hilly, winding roads.
- When going down a steep hill.

To return the transmission to the four-speed mode, press in the overdrive-off button again. The OD/OFF indicator light will go off. Disengaging the overdrive-off button is for normal driving with the four-speed automatic transaxle. If you need more power for passing, and you are:

- Going less than about 35 mph (55 km/h), push your accelerator pedal about halfway down.
- Going about 35 mph (55 km/h), push your accelerator all the way down.

If the transfer case shift lever is in the 4L position, the four-speed automatic transmission will remain in the three-speed mode.

Power Mode

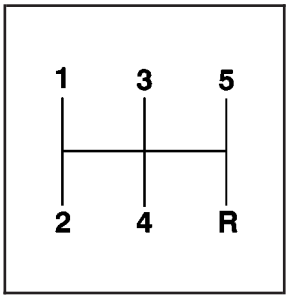
A power mode selector switch is included with the four-speed automatic transmission.

When you need more power for climbing hills or quicker acceleration, press the P (power) switch. The POWER indicator light on the instrument panel cluster will come on. For normal driving, press the N (normal) switch. The POWER indicator light will go off.

The power mode delays the automatic transmission shift points to allow for higher engine speeds in each gear. The automatic transmission also has the ability to provide SECOND (2) gear starts for improved traction on slippery surfaces. The power mode selector switch must be in the P mode and the transmission gear selector in SECOND (2), which will remain in SECOND (2) until you shift the vehicle to DRIVE (D).

Manual Transmission Operation

Five-Speed



This is your shift pattern. Here's how to operate your transmission:

FIRST (1): Press the clutch pedal and shift into FIRST (1). Then, slowly let up on the clutch pedal as you press the accelerator pedal.

You can shift into FIRST (1) when you're going less than 20 mph (32 km/h). If you've come to a complete stop and it's hard to shift into FIRST (1), put the shift lever in NEUTRAL and let up on the clutch. Press the clutch pedal back down. Then shift into FIRST (1).

SECOND (2): Press the clutch pedal as you let up on the accelerator pedal and shift into SECOND (2). Then, slowly let up on the clutch pedal as you press the accelerator pedal.

THIRD (3), FOURTH (4), FIFTH (5): Shift into THIRD (3), FOURTH (4) and FIFTH (5) the same way you do for SECOND (2). Slowly let up on the clutch pedal as you press the accelerator pedal.

To stop, let up on the accelerator pedal and press the brake pedal. Just before the vehicle stops, press the clutch pedal and the brake pedal, and shift to NEUTRAL.

NEUTRAL: Use this position when you start or idle your engine.

REVERSE (R): To back up, press down the clutch pedal and shift into REVERSE (R). Let up on the clutch pedal slowly while pressing the accelerator pedal.

You cannot go from FIFTH (5) into REVERSE (R). If you try, you will be locked out. You must first shift into NEUTRAL, move the shift lever to the left, back to the right, and then shift into REVERSE (R). This is a safety feature.

Notice: **Shifting to REVERSE (R) while your vehicle is moving forward could damage the transmission. The repairs would not be covered by your warranty. Shift to REVERSE (R) only after your vehicle is stopped.**

Also, use REVERSE (R) along with the parking brake for parking your vehicle.

Shift Speeds

⚠ CAUTION:

If you skip a gear when you downshift, you could lose control of your vehicle. You could injure yourself or others. Don't shift down more than one gear at a time when you downshift.

If your speed drops below 20 mph (32 km/h), or if the engine is not running smoothly, you should downshift to the next lower gear. You may have to downshift two or more gears to keep the engine running smoothly or for good performance.

Four-Wheel Drive

If your vehicle has four-wheel drive, you can send your engine's driving power to all four wheels for extra traction. To shift out of two-wheel drive and into four-wheel drive, move the transfer case shift lever to FOUR-WHEEL HIGH (4H) or FOUR-WHEEL LOW (4L) (see the following). You should use TWO-WHEEL HIGH (2H) for most normal driving.

Notice: **Driving on pavement in four-wheel drive for an extended period of time may cause premature wear on your vehicle's powertrain. Do not drive in four-wheel drive on pavement for extended periods of time.**

Transfer Case

The transfer case shift lever is on the floor to the right of the driver. Use this lever to shift into and out of four-wheel drive. An indicator light comes on when the transfer case is in four-wheel drive.

Your vehicle's transfer case shift lever may shake or vibrate. This is normal and your vehicle does not require service.

TWO-WHEEL HIGH (2H): This setting is for driving in most street and highway situations. Your front axle is not engaged in two-wheel drive.

FOUR-WHEEL HIGH (4H): This setting engages your front axle to help drive your vehicle. Use FOUR-WHEEL HIGH (4H) when you need extra traction, such as on wet or icy roads, or in most off-road situations.

NEUTRAL (N): Shift to this setting only when your vehicle needs to be towed.

⚠ CAUTION:

Shifting the transfer case to NEUTRAL can cause your vehicle to roll even if the transmission is in PARK (P), or if you have a manual transmission, even if you are in gear. You or someone else could be seriously injured. Be sure to set the parking brake before placing the transfer case in NEUTRAL. See "Parking Brake" in the Index.

FOUR-WHEEL LOW (4L): This setting also engages your front axle to give you extra traction and can be used for driving downhill, uphill or on rocky terrain when you're driving slower than 35 mph (55 km/h).

Remember that driving in FOUR-WHEEL HIGH (4H) or FOUR-WHEEL LOW (4L) may reduce fuel economy. Also, driving in four-wheel drive on dry pavement could cause your tires to wear faster and make your transfer case harder to shift.

You can shift from TWO-WHEEL HIGH (2H) to FOUR-WHEEL HIGH (4H) or from FOUR-WHEEL HIGH (4H) to TWO-WHEEL HIGH (2H) at any speed if your vehicle is going less than 60 mph (100 km/h) and *your wheels are straight ahead*. Your front axle will engage faster if you take your foot off the accelerator pedal for a few seconds as you shift.

Shifting Into or Out of FOUR-WHEEL LOW (4L)

1. Stop your vehicle and shift your transmission to NEUTRAL (N).
2. Shift the transfer case in one continuous motion.

Don't pause in NEUTRAL (N) as you shift from FOUR-WHEEL LOW (4L) to FOUR-WHEEL HIGH (4H), or your gears could clash.

Parking Brake

To set the parking brake, hold the brake pedal down and pull up on the parking brake lever. If the ignition is on, the brake system warning light will come on.

To release the parking brake, hold the brake pedal down. Pull the parking brake lever up until you can push in the release button located on the end of the lever. Hold the release button in as you move the lever all the way down.

Notice: **Driving with the parking brake on can overheat the brake system and cause premature wear or damage to brake system parts. Verify that the parking brake is fully released and the brake warning light is off before driving.**

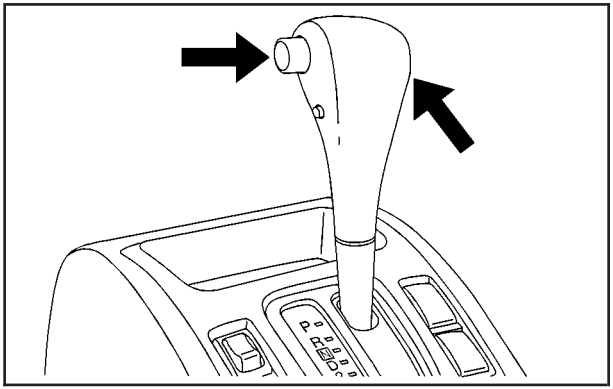
If you are towing a trailer, see *Towing a Trailer on page 4-53*.

Shifting Into Park (P)

⚠ CAUTION:

It can be dangerous to get out of your vehicle if the shift lever is not fully in PARK (P) with the parking brake firmly set. Your vehicle can roll. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure your vehicle won't move, even when you're on fairly level ground, use the steps that follow. With four-wheel drive, if your transfer case is in NEUTRAL, your vehicle will be free to roll, even if your shift lever is in PARK (P). So, be sure the transfer case is in a drive gear — not in NEUTRAL. If you're pulling a trailer, see "Towing a Trailer" in the Index.

1. Hold the brake pedal down with your right foot and set the parking brake.



2. Move the shift lever into PARK (P) by holding in the button on the lever and pushing the lever all the way toward the front of your vehicle.
3. If you have four-wheel drive, be sure the transfer case is in a drive gear — not in NEUTRAL (N).
4. Move the key to LOCK.
5. Remove the key and take it with you. If you can leave your vehicle with the key in your hand, your vehicle is in PARK (P).

Leaving Your Vehicle With the Engine Running

⚠ CAUTION:

It can be dangerous to leave your vehicle with the engine running. Your vehicle could move suddenly if the shift lever is not fully in PARK (P) with the parking brake firmly set.

If you have four-wheel drive and your transfer case is in NEUTRAL, your vehicle will be free to roll, even if your shift lever is in PARK (P). So be sure the transfer case is in a drive gear – not in NEUTRAL.

And, if you leave the vehicle with the engine running, it could overheat and even catch fire. You or others could be injured. Don't leave your vehicle with the engine running unless you have to.

Torque Lock

If you are parking on a hill and you don't shift your automatic transmission into PARK (P) properly, the weight of the vehicle may put too much force on the parking pawl in the transmission. You may find it difficult to pull the shift lever out of PARK (P). This is called "torque lock." To prevent torque lock, set the parking brake and then shift into PARK (P) properly before you leave the driver's seat. To find out how, see *Shifting Into Park (P) on page 2-28*.

When you are ready to drive, move the shift lever out of PARK (P) *before* you release the parking brake.

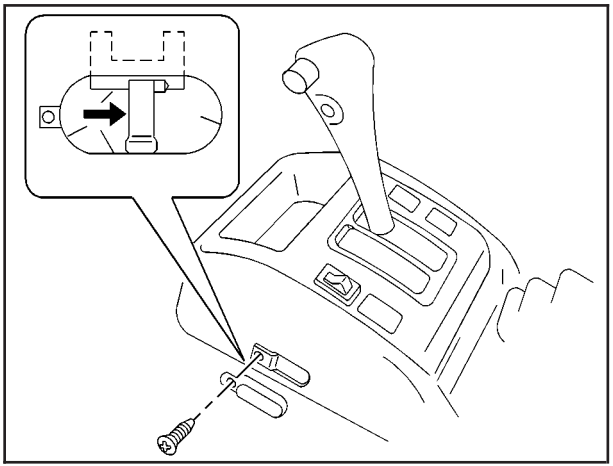
If torque lock does occur, you may need to have another vehicle push yours a little uphill to take some of the pressure from the parking pawl in the transmission, so you can pull the shift lever out of PARK (P).

Shifting Out of Park (P)

Your vehicle has an automatic transmission shift lock control system. You have to fully apply your regular brakes before you can shift from PARK (P) when the ignition is in the ON position. See *Automatic Transmission Operation on page 2-19*.

If you cannot shift out of PARK (P), ease pressure on the shift lever – push the shift lever all the way into PARK (P) and release the shift lever button as you maintain brake application. Then press the shift lever button and move the shift lever into the gear you wish to be in.

If you ever hold the brake pedal down but still can't shift out of PARK (P), try this:



1. Apply the parking brake until the end of Step 6.
2. If the engine is running, turn it off. Turn the key to ON or ACC.
3. Find the access hole cover on the driver's side of the console, near the shift lever.
4. Remove the screw and cover.

5. Inside, you'll see the return plate. Using your finger, move the return plate toward the rear of the vehicle until it stops.
6. Move the shift lever into the gear you want while, while holding the return plate in the most rearward position.
7. Have the vehicle fixed as soon as possible.

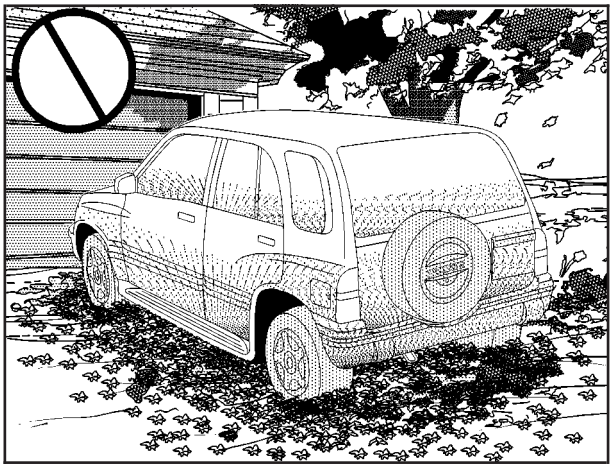
Parking Your Vehicle

Before you get out of your manual transmission vehicle, put your shift lever in REVERSE (R) and firmly apply the parking brake. Once the shift lever has been placed into REVERSE (R) with the clutch pedal pressed in, you can turn the ignition key to LOCK, remove the key and release the clutch.

If you have four-wheel drive, be sure your transfer case is in a drive gear. Your vehicle could roll if it isn't.

If you are towing a trailer, see *Towing a Trailer on page 4-53*.

Parking Over Things That Burn



⚠ CAUTION:

Things that can burn could touch hot exhaust parts under your vehicle and ignite. Do not park over papers, leaves, dry grass or other things that can burn.

Engine Exhaust

⚠ CAUTION:

Engine exhaust can kill. It contains the gas carbon monoxide (CO), which you can not see or smell. It can cause unconsciousness and death.

You might have exhaust coming in if:

- **Your exhaust system sounds strange or different.**
- **Your vehicle gets rusty underneath.**
- **Your vehicle was damaged in a collision.**
- **Your vehicle was damaged when driving over high points on the road or over road debris.**
- **Repairs were not done correctly.**
- **Your vehicle or exhaust system had been modified improperly.**

If you ever suspect exhaust is coming into your vehicle:

- **Drive it only with all the windows down to blow out any CO; and**
- **Have your vehicle fixed immediately.**

Running Your Engine While You Are Parked

It is better not to park with the engine running. But if you ever have to, here are some things to know.

⚠ CAUTION:

Idling the engine with the climate control system off could allow dangerous exhaust into your vehicle. See the earlier Caution under *Engine Exhaust on page 2-32*.

Also, idling in a closed-in place can let deadly carbon monoxide (CO) into your vehicle even if the climate control fan is at the highest setting. One place this can happen is a garage. Exhaust — with CO — can come in easily. NEVER park in a garage with the engine running.

Another closed-in place can be a blizzard. See *Winter Driving on page 4-40*.

⚠ CAUTION:

It can be dangerous to get out of your vehicle if the shift lever is not fully in PARK (P) with the parking brake firmly set. Your vehicle can roll. Do not leave your vehicle when the engine is running unless you have to. If you have left the engine running, the vehicle can move suddenly. You or others could be injured.
To be sure your vehicle will not move, even when you are on fairly level ground, always set your parking brake and move the shift lever to PARK (P).

⚠ CAUTION:

Four-wheel drive vehicles with the transfer case in NEUTRAL will allow the vehicle to roll, even if your shift lever is in PARK (P). So, be sure the transfer case is in a drive gear — not in NEUTRAL. Always set your parking brake.

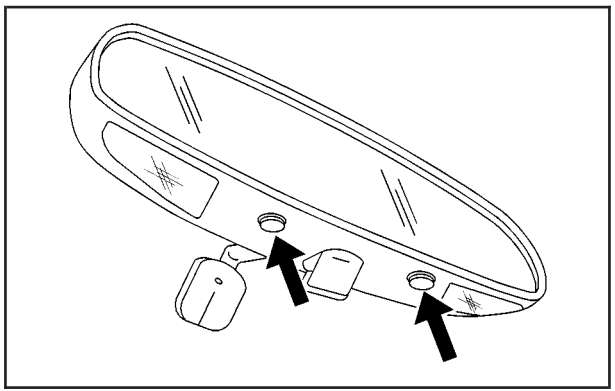
Follow the proper steps to be sure your vehicle will not move. See *Shifting Into Park (P) on page 2-28*.

If you are pulling a trailer, see *Towing a Trailer on page 4-53*.

Mirrors

Manual Rearview Mirror

An inside rearview mirror is attached to your windshield. The mirror can be adjusted up and down or side to side.



The mirror may also be equipped with reading lamps.

The mirror can also be adjusted for day or night driving. Pull the tab for night driving to reduce glare. Push the tab for daytime driving.

Outside Manual Mirrors

Adjust these mirrors by hand so that you can see a little of the side of your vehicle when you are sitting in a comfortable driving position.

Outside Power Mirrors

If your vehicle has power mirrors, the selector switch is located on the lower left side of the instrument panel.

You can only adjust the mirrors when the ignition switch is in ON or ACC.

To adjust the mirrors do the following:

1. Move the selector switch to the L (left) or R (right) to select the mirror you wish to adjust.
2. Press the outer part of the four-way control pad, located below the selector switch, that coincides with the direction you want the mirror to go.
3. Return the selector switch to the center position to help prevent moving the mirror accidentally.

Outside Convex Mirror

Your passenger's side mirror is convex. A convex mirror's surface is curved so you can see more from the driver's seat.

⚠ CAUTION:

A convex mirror can make things (like other vehicles) look farther away than they really are. If you cut too sharply into the right lane, you could hit a vehicle on your right. Check your inside mirror or glance over your shoulder before changing lanes.

Storage Areas

Glove Box

Use your key to lock and unlock the glove box. To open the glove box, pull the latch toward you.

The glove box may have a two-position detent for opening the door. Lower the door to the first detent for access to the glove box. Pull it to the next detent for further access.

Cupholder(s)

Two cupholders are on the center console next to the parking brake lever.

Coinholder(s)

Your instrument panel may have two coinholders located to the left of the steering wheel.

Luggage Carrier

⚠ CAUTION:

If you try to carry something on top of your vehicle that is longer or wider than the luggage carrier — like paneling, plywood, a mattress and so forth — the wind can catch it as you drive along. This can cause you to lose control. What you are carrying could be violently torn off, and this could cause you or other drivers to have a collision, and of course damage your vehicle. You may be able to carry something like this inside. But, never carry something longer or wider than the luggage carrier on top of your vehicle.

If your vehicle is equipped with a luggage carrier, it has side rails and may be equipped with crossrails attached to the roof to secure cargo.

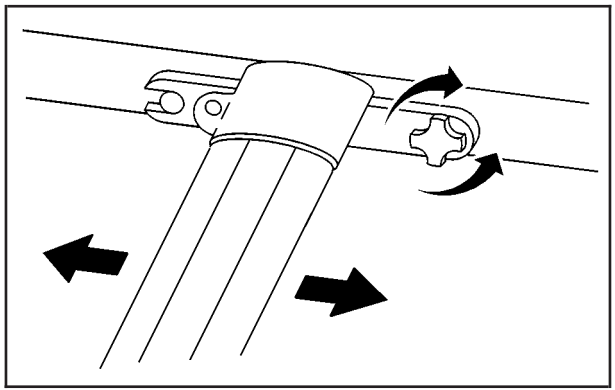
Use GM accessory racks that are compatible with your luggage carrier for transporting sports equipment. These are available through your GM dealer.

The crossrails, if equipped, are adjustable, but are only designed to move a limited amount. The front and rear crossrails are not interchangeable. If you do remove the crossrails, make sure to mark them with front or rear. When replacing the front and rear crossrails, make sure to but them back in the same position they came from as the front rail is slightly longer than the rear rail.

Just loosen the slider knobs at each end of the crossrail to move them.

- The front crossrail has limited movement when traveling rearward.
- The back crossrail has limited movement when traveling forward.

After adjusting them, make sure both sides of the crossrails are even, then tighten the slider knobs.



Be sure the cargo is properly loaded. Follow these guidelines:

- Carrying small, heavy loads on the roof is not recommended.
- Do not load cargo directly on the roof panel.
- Tie the load to the tie down loops at both ends of the crossrails to keep loads from shifting.
- If you need to carry long items, move the crossrails as far apart as possible. Tie the load to the tie downs provided. Do not tie the load so tightly that the crossrails and side rails are damaged.

Notice: **Loading cargo on the luggage carrier that weighs more than 100 lbs. (45 kg) or hangs over the rear or sides of the vehicle may damage your vehicle. Load cargo so that it rests on the slats as far forward as possible and against the side rails, making sure to fasten it securely.**

Don't exceed the maximum vehicle capacity when loading your vehicle. For more information on vehicle capacity and loading, see *Loading Your Vehicle on page 4-51*.

To prevent damage or loss of cargo as you're driving, check now and then to make sure the luggage carrier and cargo are still securely fastened.

Convenience Net

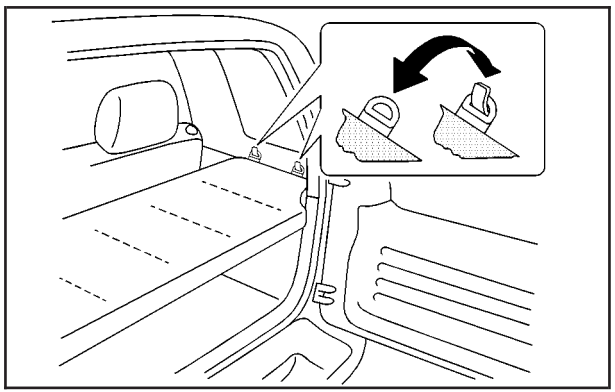
You may have a convenience net in the rear of your vehicle to help keep small items, like gloves and light clothing, in place during turns or quick stops and starts.

The net is not designed to retain these items during off-road use. The net is not for larger, heavier items.

Attach the loops to the hooks located along the sides of the rear cargo area. You may attach the convenience net loops to either the forward or the rear hooks.

Cargo Cover

Luggage or other cargo placed in the luggage compartment can be hidden from view by a luggage compartment cover, if your vehicle has this feature. However, the luggage compartment covers are not designed to support items loaded on top of them, and should not be used as a shelf.



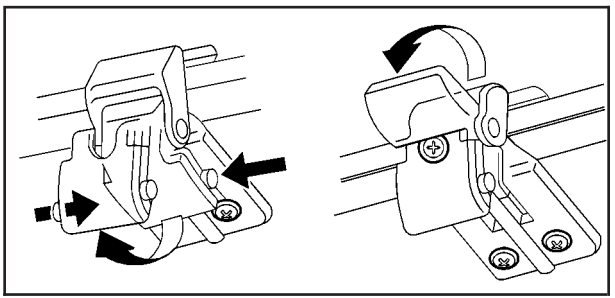
Use the anchors in the rear of the vehicle to hook the cargo cover in place.

See *Loading Your Vehicle on page 4-51* for more information.

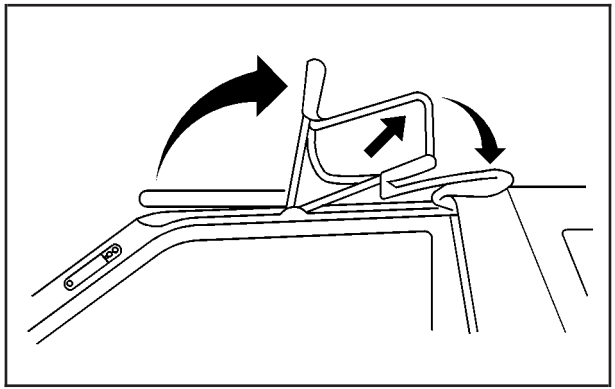
Sunroof

Opening and Closing the Sunroof

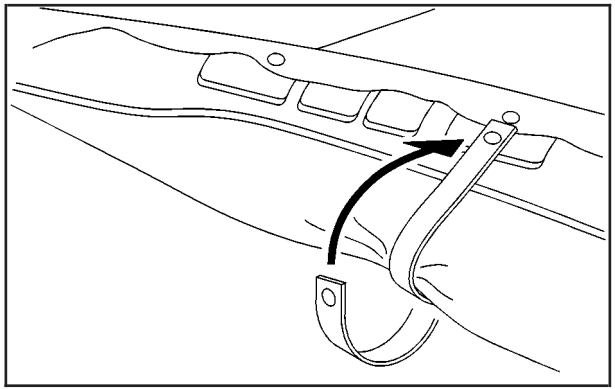
1. Swing your sun visors down.



2. Squeeze the front top bow latch buttons and pull the latch back.
3. Unhook the latch from the front top bow.



4. Swing the front top bow up and back while folding the canvas top as shown. Be sure that you don't pinch the canvas top between the front top bow arms and the roof rails.
5. Take out the holding strap from the pocket near the dome lamp.



6. Wrap the holding strap around the canvas top and snap it to the front top bow retaining strap.
7. Push the front top bow latches down until they click.
8. Swing your sun visors up.

Reverse the steps to close your sunroof. Be sure your front top bow is latched securely.

Convertible Top

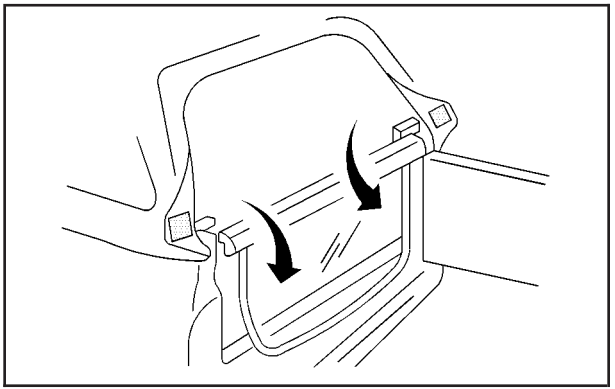
Your convertible top features a sunroof, a removable rear window and removable side windows.

Notice: **If you lower the top when the vehicle is moving or drive with any part of the top unfastened or partially removed, you could damage your vehicle. The repairs would not be covered by your warranty. Always verify that the top is secure before driving.**

Removing and Installing the Rear Window

The rear window on your vehicle is removable. This allows you to open the back opening all the way or to replace the window if it becomes deteriorated. To remove the rear window do the following:

1. Open the rear gate all the way.
2. Unfasten the canvas flaps at the lower corners of the rear window to uncover the zipper pull.
3. Unzip the rear window.

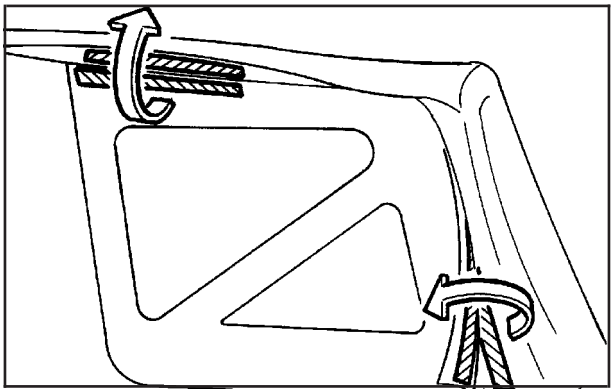


4. Hang the rear window down so it hangs outside of the vehicle.
5. Pull the rear window frame bar rearward (see illustration above). Then slide the bar to the left to remove the window.

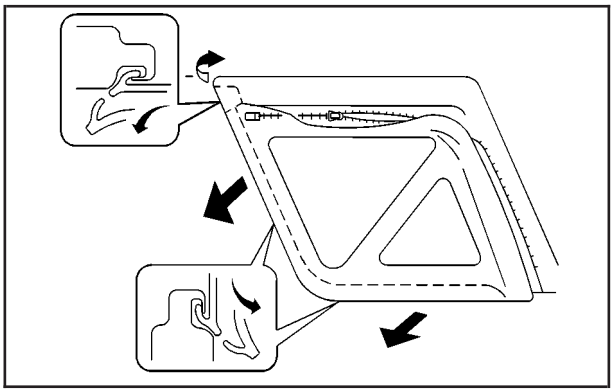
Reverse the steps to install the rear window. Make sure that all the hook and loop fastener strips and flaps are correctly fastened and overlapped. Make sure that the window is completely closed before driving.

Removing and Installing the Side Window

To remove the side window do the following:

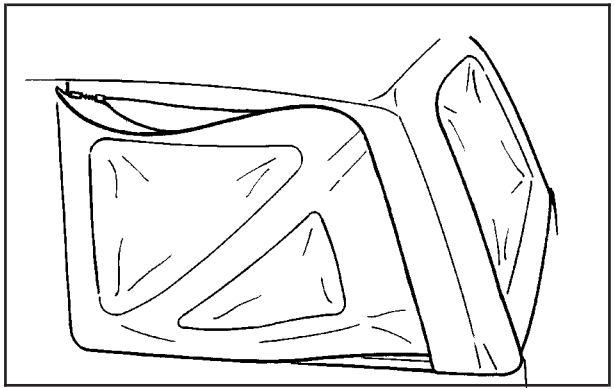


1. Release the tension in the canvas top support arms. Unfasten the hook and loop fastener strips on the top and rear quarter of the side window.
2. Unzip the zipper almost all the way, leaving about 3 inches (8 cm) of it still zipped and unfasten the hook and loop fastener strips on the inside of the window.
3. Release the plastic strip sewn along the bottom edge of the window by gently pulling down and out. Then release the plastic along the front edge of the window by pulling it forward and out. It may help to rock the window back and forth to remove it.

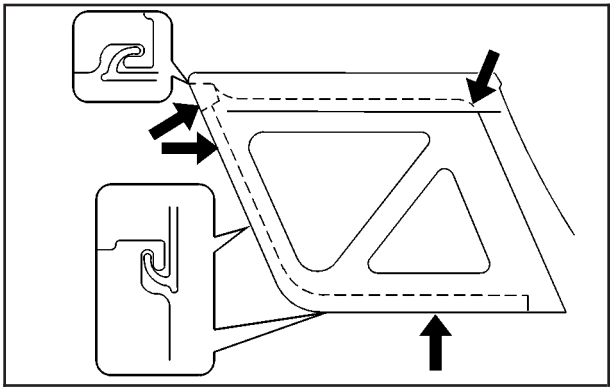


4. Unfasten the plastic clip, which is part of the canvas top, at the top front corner of each side window. Then unzip the zipper the rest of the way and remove the side window.

To install the side window:



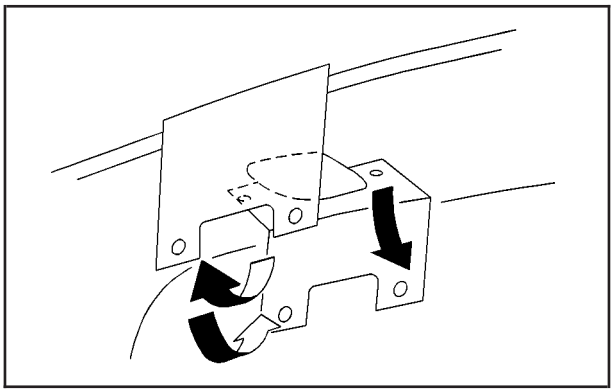
1. Make sure the plastic clip at the top front corner of the canvas top is unfastened.
2. Then start by zipping the zipper about 3 inches (8 cm), to hold the window in place. When zipping, place the rear bottom corner of the window inside the rear part of the vehicle body to help support the window while you engage the zipper end.
3. Install the plastic strip into the window channel before completely zipping the window. There is a locating pin in the front upper corner to assist in aligning the window.
4. Pull rearward on the rear edge of the window to make sure the window is secure and finish zipping the window.



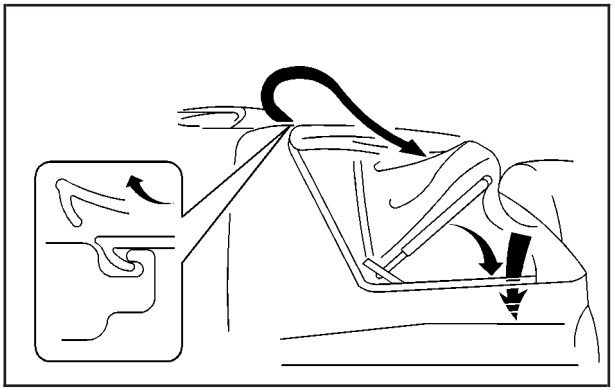
5. After completing installation, make sure that the front and bottom ends are securely hooked and the rear top end of the window is under the canvas top.
6. Refasten the plastic clip at the top front corner of the side window. Restore the tension to the canvas top support arms.

Lowering and Raising the Canvas Top

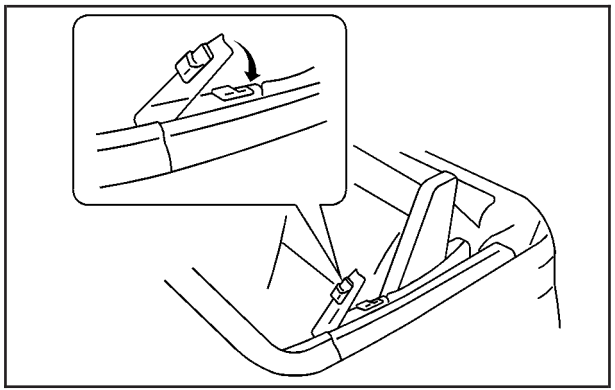
1. Remove the side windows of the canvas top as shown previously. Remember to release the tension in the canvas top support arms first.
2. Open the rear window and hang it down inside the luggage compartment (or over the top of the vehicle's trunk).



3. Unfasten the snaps that secure the canvas top to the roof. The snaps are located on both sides of the dome lamp. Reattach the snaps which hold the sunroof canvas in place.



4. Unhook the front end of the rear canvas top. You may want to open the sunroof to gain easier access to the rear top. Lower the bow slowly while tucking the canvas into the luggage compartment, making sure the bows are not pinching any part of the canvas top. Make sure the safety belts are not blocked by the folded top.



5. Engage the latches by pushing down on the support arms at the hinges.

Reverse the steps to raise your canvas top.

During installation of the top, make sure the plastic retaining strip along the front edge of the canvas top is aligned with the locating pin in the channel. There is a mark near the center of the channel.

Section 3 Instrument Panel

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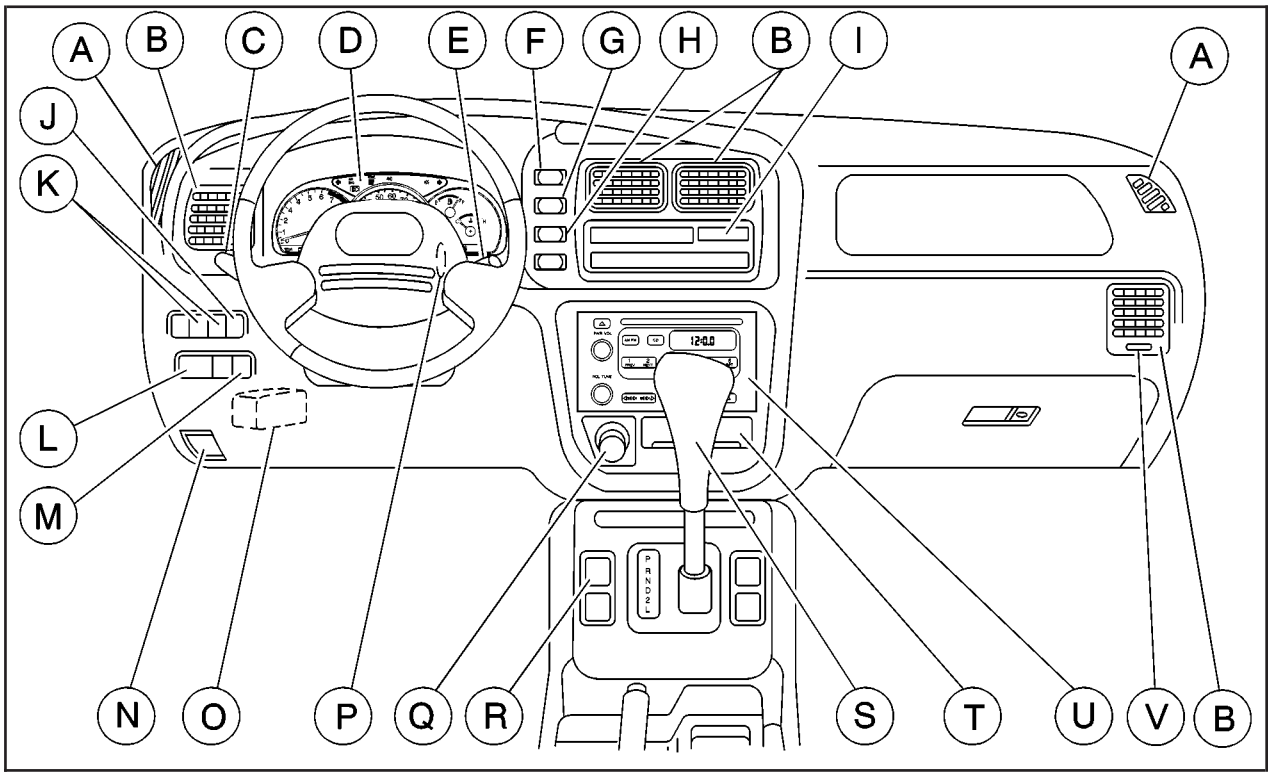
Instrument Panel Overview



The main components of your instrument panel are the following:

A. Side Defroster Outlets. See *Outlet Adjustment on page 3-21*.

B. Air Outlets. See *Outlet Adjustment on page 3-21*.

C. Turn Signal/Multifunction Lever. See *Turn Signal/Multifunction Lever on page 3-5*.

D. Instrument Panel Cluster. See *Instrument Panel Cluster on page 3-25*.

E. Windshield Wipers Lever. See “Windshield Wipers” under *Turn Signal/Multifunction Lever on page 3-5*.

F. Hazard Button. See *Hazard Warning Flashers on page 3-4*.

G. Rear Window Defogger Button (If Equipped). See “Rear Window Defogger” under *Climate Control System on page 3-18*.

H. Cruise Control Button (If Equipped). See “Cruise Control” under *Turn Signal/Multifunction Lever on page 3-5*.

I. Climate Controls. See *Climate Control System on page 3-18*.

J. Rear Window Washer/Wiper Button (If Equipped). See “Rear Window Washer/Wiper” under *Turn Signal/Multifunction Lever on page 3-5*.

K. Coinholder (If Equipped). See *Coinholder(s) on page 2-35*.

L. Outside Power Mirrors (If Equipped). See *Outside Power Mirrors on page 2-34*.

M. Instrument Panel Brightness Thumbwheel. See “Instrument Panel Brightness” under *Interior Lamps on page 3-15*.

N. Hood Release. See *Hood Release on page 5-10*.

O. Instrument Panel Fuse Block. See “Instrument Panel Fuse Block” under *Fuses and Circuit Breakers on page 5-89*.

P. Ignition Switch. See *Ignition Positions on page 2-15*.

Q. Cigarette Lighter/Accessory Power Outlet (If Equipped). See *Accessory Power Outlets on page 3-17*.

R. Power Mode Selector Button (If Equipped). See “Power Mode” under *Automatic Transmission Operation on page 2-19*.

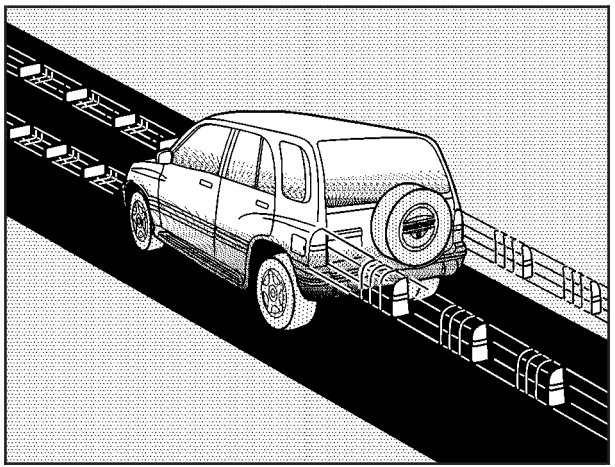
S. Shift Lever. See *Shifting Into Park (P) on page 2-28*.

T. Ashtray. See *Ashtrays and Cigarette Lighter on page 3-17*.

U. Audio System (If Equipped). See *Audio System(s) on page 3-37*.

V. Vent Shut-off Thumbwheel. See *Outlet Adjustment on page 3-21*.

Hazard Warning Flashers



Your hazard warning flashers let you warn others. They also let police know you have a problem. Your front and rear turn signal lamps will flash on and off.

The hazard warning button is located on the instrument panel near the comfort controls.

Your hazard warning flashers work no matter what position your key is in, and even if the key isn't in.

Press this button to make the front and rear turn signal lamps flash on and off. Press the button again to turn the flashers off.

When the hazard warning flashers are on, your turn signals won't work.

Other Warning Devices

If you carry reflective triangles, you can set one up at the side of the road about 300 feet (100 m) behind your vehicle.

Horn

To sound the horn, press the portion of your steering wheel marked with the horn symbol.

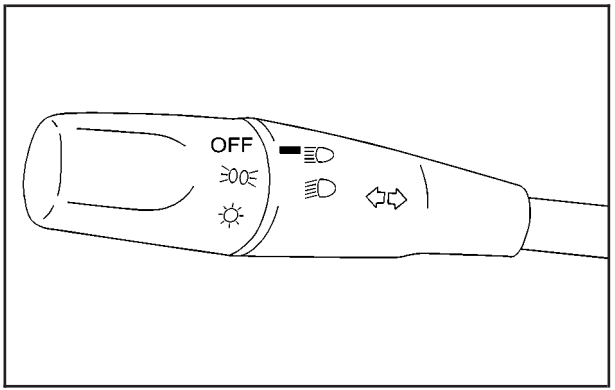
Tilt Wheel

If your vehicle has a tilt wheel, you can adjust the steering wheel before you drive. You can raise it to the highest level to give your legs more room when you exit and enter your vehicle.

The lever that allows you to tilt the steering wheel is located on the left side of the steering wheel column.

To tilt the wheel, hold the wheel and move the lever down. Then move the wheel to a comfortable position and release the lever to lock the wheel in place.

Turn Signal/Multifunction Lever



The lever on the left side of the steering column includes the following:

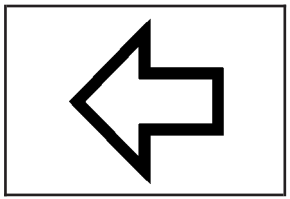
- Turn and Lane-Change Signals
- Headlamp High/Low-Beam Changer
- Flash-to-Pass
- Manual Operation of Headlamps and Parklamps

For information on exterior lamps, see *Exterior Lamps on page 3-12*.

Turn and Lane-Change Signals

The turn signal has an upward (for right) and a downward (for left) position. These positions allow you to signal a turn or a lane change.

To signal a turn, move the lever all the way up or down. When the turn is finished, the lever will return automatically.



An arrow on the instrument panel cluster will flash in the direction of the turn or lane change.

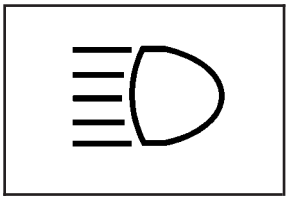
To signal a lane change, just raise or lower the lever until the arrow starts to flash. Hold it there until you complete your lane change. The lever will return by itself when you release it.

As you signal a turn or a lane change, if the arrows don't flash but just stay on, a signal bulb may be burned out and other drivers won't see your turn signal.

If a bulb is burned out, replace it to help avoid an accident. If the arrows don't go on at all when you signal a turn, check the fuse and for burned-out bulbs. See *Fuses and Circuit Breakers on page 5-89*.

Headlamp High/Low-Beam Changer

First, you must have the headlamps on. For high beams, push the turn signal lever toward the instrument panel.



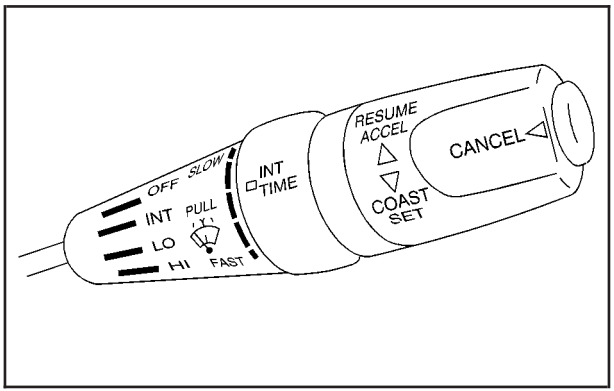
While the high beams are on, a light on the instrument panel cluster also will be on. It will go off when you switch to low beam.

To switch back to low beams, pull the lever toward you.

Flash to Pass

With the lever in the low-beam position, pull the lever toward you to momentarily switch to high beam (to signal that you are going to pass). When you release the lever, the headlamps will return to low-beam operation.

Windshield Wipers



Use this lever located on the right side of the steering wheel to operate the windshield wipers and washers.

OFF: Move the lever to OFF to turn off the windshield wipers.

INT (Intermittent): Move the stalk to INT (Intermittent) then turn the inner band and choose the delay you want. Turn the inner band up for longer intervals between wiper cycles. Turn the band down for shorter intervals.

LO (Low Speed): For steady wiping at low speed, move the stalk down to LO.

HI (High Speed): For higher speed wiping, move the stalk down further to HI.

: Move the lever all the way down to this position for a single wiping cycle. Hold it there until the windshield wipers start; then let go. The windshield wipers will stop after one wipe. If you want more wipes, hold the band at this position longer.

Remember that damaged wiper blades may prevent you from seeing well enough to drive safely. To avoid damage, be sure to clear ice and snow from the wiper blades before using them. If they're frozen to the windshield, carefully loosen or thaw them. If your blades do become damaged, get new blades or blade inserts.

Heavy snow or ice can overload your wipers.
A circuit breaker will stop them until the motor cools. Clear away snow or ice to prevent an overload.

Windshield Washer

To wash your windshield, pull the stalk with the wiper symbol on it toward you one time. When you release the stalk, the washers will stop. The wiper will continue wiping for about three cycles and will either stop or will resume the speed you were using before.
See *Windshield Washer Fluid on page 5-41*.

⚠ CAUTION:

In freezing weather, do not use your washer until the windshield is warmed. Otherwise the washer fluid can form ice on the windshield, blocking your vision.

Rear Window Washer/Wiper

To turn on your rear wiper, push the upper button. Push the same button again to turn it off.

To spray washer fluid on the rear window, push the lower button about halfway down. Washer fluid will spray as long as you hold this button. To wash and wipe at the same time, push the button all the way in.

The washer and wiper will run as long as you hold this button. To add washer fluid, see *Windshield Washer Fluid on page 5-41*.

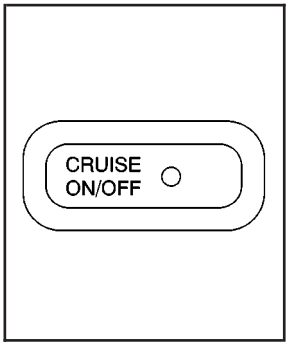
Cruise Control

If your vehicle has cruise control, you can maintain a speed of about 25 mph (40 km/h) or more without keeping your foot on the accelerator. This can really help on long trips. Cruise control will not set at speeds below about 25 mph (40 km/h).

⚠ CAUTION:

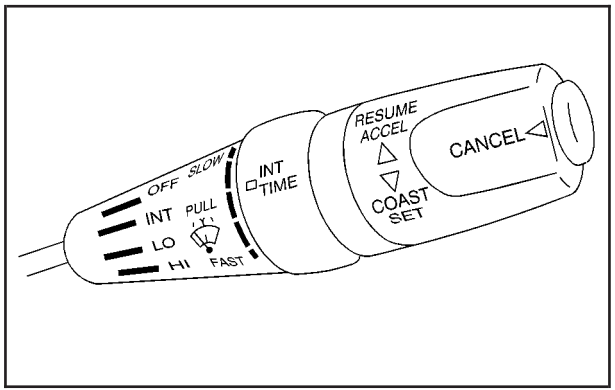
- **Cruise control can be dangerous where you can not drive safely at a steady speed. So, do not use your cruise control on winding roads or in heavy traffic.**
- **Cruise control can be dangerous on slippery roads. On such roads, fast changes in tire traction can cause needless wheel spinning, and you could lose control. Do not use cruise control on slippery roads.**

Setting Cruise Control



1. Press the CRUISE ON/OFF button located on the instrument panel to turn the system on. The indicator light in the button will come on. Wait at least one second after turning the system on before setting a speed.

Once the CRUISE ON/OFF switch is turned on, it will come on each time you start your vehicle until you manually turn if off.



2. Accelerate to the speed you want, turn the end of the lever to COAST SET and release it; the CRUISE light will come on. Cruise will not set below 25 mph (40 km/h).
3. Take your foot off the accelerator pedal.

Resuming a Set Speed

If you set your cruise control at a desired speed then suspend cruise by applying the brake, by pressing the clutch pedal if you have a manual transmission or by pressing CANCEL, you don't need to reset it.

You may resume your previously set speed by briefly turning the switch to RESUME ACCEL (Accelerate), provided your speed has not dropped below 25 mph (40 km/h). If your speed has dropped below 25 mph (40 km/h), accelerate to 25 mph (40 km/h) or greater then turn the switch to RESUME ACCEL. There is a short time delay after your speed is suspended until you can reset the cruise control to your desired speed.

Increasing Speed While Using Cruise Control

There are two ways to go to a higher speed.

- Use the accelerator pedal to go to a higher speed. Turn the switch on the lever down to COAST SET and release it. Take your foot off the accelerator pedal. You'll now cruise at the higher speed.
- Turn the switch on the lever up to RESUME ACCEL. Hold the switch at RESUME ACCEL until you get up to the speed you want, then release the switch.

Reducing Speed While Using Cruise Control

To reduce your speed, turn the switch and hold it down in the COAST SET position until you reach the lower speed you want, then release the switch.

Passing Another Vehicle While Using Cruise Control

Use the accelerator pedal to increase your speed. When you take your foot off the pedal, your vehicle will slow down to the cruise control speed you set earlier.

Using Cruise Control on Hills

How well your cruise control will work on hills depends upon your speed, load and the steepness of the hills. When going up steep hills, you may have to step on the accelerator pedal to maintain your speed. When going downhill, you may have to brake or shift to a lower gear to keep your speed down. Of course, applying the brake suspends cruise control. Many drivers find this to be too much trouble and don't use cruise control on steep hills.

Suspending Cruise Control

There are two ways to suspend cruise control:

- Step lightly on the brake pedal, or push the clutch pedal if you have a manual transmission.
- Push in the CANCEL button on the end of the cruise control lever.

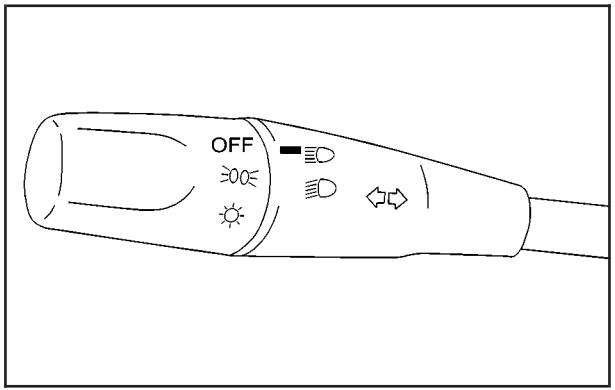
Ending Cruise Control

To end cruise control press CRUISE ON/OFF on the instrument panel.

Erasing Speed Memory

Cruise control set speed memory is erased when you turn off the CRUISE ON/OFF switch or anytime you turn the ignition off.

Exterior Lamps



The lever on the left side of the steering column operates the exterior lamps.

Turn the outside part of the lever to operate the lamps.

The exterior lamps control has three positions:

OFF: Turn the control to this position to turn off all lamps, except the Daytime Running Lamps (DRL) or if the Automatic Headlamp System is working.

(Parking Lamps): Turn the control to this position to turn on the parking lamps, together with the following:

- Sidemarker Lamps
- Taillamps
- License Plate Lamp
- Instrument Panel Lights

(Headlamps): Turn the control to this position to turn on the headlamps, together with the previously listed lamps and lights.

Daytime Running Lamps

Daytime Running Lamps (DRL) can make it easier for others to see the front of your vehicle during the day. DRL can be helpful in many different driving conditions, but they can be especially helpful in the short periods after dawn and before sunset. Fully functional daytime running lamps are required on all vehicles first sold in Canada.

The DRL system will make your headlamps come on at a reduced brightness when the three following conditions are met:

- The ignition is on with the engine running,
- the exterior lamps control is off or the parking lights are on, and
- the parking brake is released.

When the DRL are on, only your headlamps will be on at a reduced brightness. The taillamps, sidemarker and other lamps won't be on. Your instrument panel won't be lit up either.

When you move the exterior lamps control to the headlamp position, your DRL will go off and your headlamps will come on. The other lamps that come on with your headlamps will also come on.

When it begins to get dark, the headlamps will automatically switch from DRL to the regular headlamps. See "Automatic Headlamp System" following.

When you turn the exterior lamp control to off, the regular lamps will go off and your headlamps will change to the reduced brightness of DRL provided it is not dark outside. DRL will also come on if only the parking lamps are being used.

As with any vehicle, you should turn on the regular headlamp system when you need it.

Automatic Headlamp System

Your vehicle is equipped with an automatic light sensor on top of the instrument panel, on the passenger's side of the vehicle, so be sure it is not covered. If it is, the headlamps will remain on continuously.

There is a delay in the transition between the daytime and nighttime operation of the DRL and the Automatic Headlamp Systems so that driving under bridges or bright overhead street lights does not affect the system. The DRL and Automatic Headlamp Systems will only be affected when the light sensor sees a change in lighting lasting longer than this delay.

When it is dark enough outside, or you are driving through a parking garage, heavy overcast weather or a tunnel, the system will turn on your low-beam headlamps at normal brightness. Along with your vehicle's headlamps, the taillamps, sidemarker, parking lamps and the instrument panel lights will also turn on. The radio display will dim.

As with any vehicle, you should turn on the regular headlamps when you need them.

To temporarily disable your vehicle's DRL and Automatic Headlamp Systems functions, do the following:

1. Before turning the ignition key to ON or START, set the parking brake.
2. Then turn the ignition key to ON or START.
   - The Automatic Headlamp System will not turn on under any conditions, even in darkness.
   - The DRL will not turn on.

The DRL and Automatic Headlamp System functions will stay off with the ignition on, until you release the parking brake. Once the parking brake is released the DRL will turn on if it is daylight or the Automatic Headlamp System will turn on if it is dark enough outside.

If you turn the ignition key to ON or START and then set the parking brake, the DRL will turn off (in all conditions) and the Automatic Headlamp System will remain on (if dark enough outside). Any other uses of the parking brake after the engine is turned on will have no effect on the normal Automatic Headlamp System operation.

Headlamps On Reminder

If you turn the ignition off, remove the key, open the door and leave the lamps on, a tone will remind you to turn off your lamps.

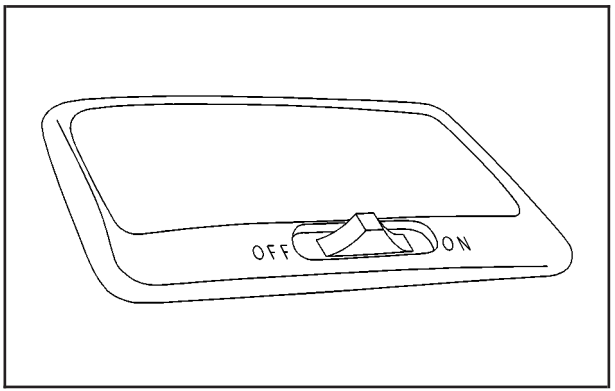
Interior Lamps

Instrument Panel Brightness

The thumbwheel for this feature is located to the left of the steering wheel on the instrument panel.

Move the thumbwheel upward to brighten the instrument panel lights or downward to dim them.

Dome Lamp



The dome lamp operates as follows:

OFF: This position is to the left when you are sitting in the driver's seat. The dome lamp will stay off even when a door is opened.

Center: The lamp will come on when a door is opened. The dome lamp will turn off while all doors are shut.

ON: This position is to the right when you are sitting in the driver's seat. The dome lamp will turn on and stay on whether or not a door is open.

Entry Lighting

If your vehicle has remote keyless entry, it is equipped with an entry lighting feature that controls your dome lamp (and cargo lamp, if equipped). For the dome lamp to operate as described below, the switch must be in the middle position:

Your interior lamps will come on and stay on for a set time whenever you press the UNLOCK button on the remote keyless entry transmitter.

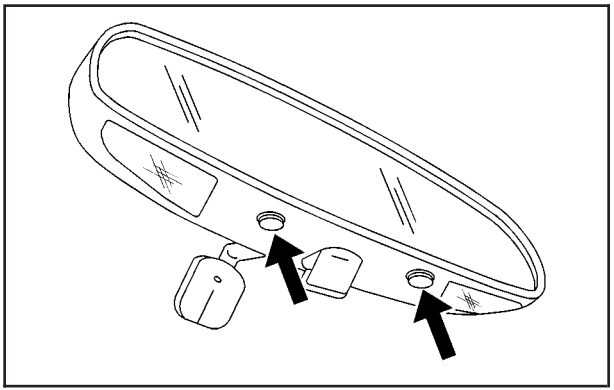
If you open any door, the lamps will stay on while the door is open, then turn off automatically about 40 seconds after the last door is closed. If you press the UNLOCK button on the remote keyless entry transmitter and don't open a door, the lamps will come on and then turn off after about 40 seconds.

The lamps will turn off immediately if you turn the ignition key to ON. When the ignition is on, the entry lighting feature is inactive. The interior lamps will come on only if they are turned on by the dome lamp switch or one of the doors is opened.

When you press the LOCK button on the remote keyless entry transmitter, the interior lamps will come on for about three seconds, and then shut off.

Reading Lamps

Your vehicle's inside rearview mirror may have reading lamps.



Push the buttons on the bottom of the mirror to turn the reading lamps on and off.

Cargo Lamp

Some four-door models are equipped with a cargo lamp. The cargo lamp comes on when any door is opened, and goes off when all doors are shut.

Accessory Power Outlets

If your vehicle has an accessory power outlet, you can plug in auxiliary electrical equipment.

The accessory power outlet is located in the center console near the parking brake.

To use the outlet, open the cover. When not using it, always cover the outlet with the protective cap.

These circuits are protected by a fuse and have maximum current levels.

Notice: **Leaving electrical equipment on for extended periods will drain the battery. Always turn off electrical equipment when not in use and do not plug in equipment that exceeds the maximum amperage rating.**

Certain power accessory plugs may not be compatible to the power accessory outlet and could result in blown vehicle or adapter fuses.

If you experience a problem see your dealer for additional information on the power accessory plugs.

When adding electrical equipment, be sure to follow the proper installation instructions included with the equipment.

Notice: **Adding any electrical equipment to your vehicle may damage it or keep other components from working as they should. The repairs would not be covered by your warranty. Check with your dealer before adding electrical equipment.**

Notice: **Improper use of the power outlet can cause damage not covered by your warranty. Do not hang any type of accessory or accessory bracket from the plug because the power outlets are designed for accessory power plugs only.**

Ashtrays and Cigarette Lighter

To use the lighter, if equipped, the ignition key must be in ON or ACC. Push the lighter in all the way and let go. When it's ready, it will pop back out by itself.

Pull the door to open the ashtray. To remove it, press down on the tab and pull the ashtray out. To reinstall the ashtray, push it in until the tab latches.

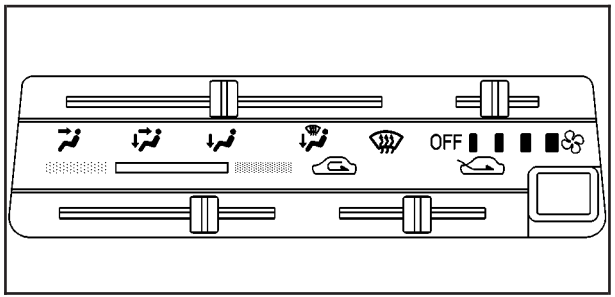
The rear ashtray, if equipped, is on the back of the center console. Push on the left side of the ashtray. The ashtray will turn clockwise for usage. To remove the rear ashtray, press down on the tab and pull it out.

Notice: **If you put papers or other flammable items in the ashtray, hot cigarettes or other smoking materials could ignite them and possibly damage your vehicle. Never put flammable items in the ashtray.**

Climate Controls

Climate Control System

With this system you can control the heating, cooling and ventilation for your vehicle.



Operation

(Fan): Move the lever away from OFF to turn the system on. Slide the top right lever to the left or right to increase or decrease the fan speed.

If the airflow seems low when the fan is at the highest setting, the passenger compartment air filter, if equipped, may need to be replaced. For more information, see *Passenger Compartment Air Filter on page 3-22* and *Short Trip/City Scheduled Maintenance on page 6-7*.

Slide the top left lever to the left or right to direct the airflow inside of your vehicle.

To change the current mode, select one of the following:

(Vent): This mode directs air to the instrument panel outlets.

(Bi-Level): This mode directs most of the air to the instrument panel outlets, and then directs the remaining air to the floor outlets.

(Floor): This mode directs half of the air to the floor outlets with some air directed to the outboard outlets (for the side windows) and some air directed to the windshield.

This lever can also be used to select defog or defrost mode. Information on defogging and defrosting can be found later in this section.

(Outside Air): Slide the lower right lever to the right for outside air. With the lever in this position, outside air will circulate throughout your vehicle.

(Recirculation): Slide the lower right lever to the left for recirculated air. With the lever in this position outside air and odors can be prevented from entering your vehicle and also helps heat or cool the air inside your vehicle more quickly.

If the lever is in the middle of the two positions, you will have both outside and recirculated air inside your vehicle.

If you are in city traffic, your vehicle is stopped and idling or the weather is hot, the system may be switched from the outside air mode to the recirculation mode. To help prevent the air inside of your vehicle from becoming too stale, be sure to return to outside air periodically.

Temperature Control: Slide the lever located on the lower left side to change the temperature. Move it to the right for warmer air and to the left for cooler air. Without air conditioning, the air temperature cannot be less than the outside air temperature.

Air Conditioning (A/C): Press the air conditioning (A/C) button to turn the air-conditioning system on or off. When A/C is pressed, an indicator light in the button will come on to let you know that the air conditioning is activated.

On hot days, open the windows to let hot inside air escape; then close them. This helps to reduce the time it takes for your vehicle to cool down. It also helps the system to operate more efficiently.

For quick cool down on hot days:

1. Select the vent mode.
2. Select the recirculation mode.
3. Select A/C.
4. Select the coolest temperature.
5. Select the highest fan speed.

The air-conditioning system removes moisture from the air, so you may sometimes notice a small amount of water dripping underneath your vehicle while idling or after turning off the engine. This is normal.

Defogging and Defrosting

Fog on the inside of windows is a result of high humidity (moisture) condensing on the cool window glass. This can be minimized if the climate control system is used properly. There are two modes to clear fog or frost from your windshield. Use the defog mode to clear the windows of fog or moisture and warm the passengers. Use the defrost mode to remove fog or frost from the windshield more quickly.

(Defog): This mode directs the air between the windshield, side windows, instrument panel outlets and the floor outlets. The air-conditioning compressor will run automatically in this setting without pressing A/C, unless the outside temperature is at or below freezing.

(Defrost): This mode directs the air to the windshield and the side windows. The air-conditioning compressor will run automatically in this setting without pressing A/C, unless the outside temperature is at or below freezing. Do not drive the vehicle until all the windows are clear.

Rear Window Defogger

If your vehicle has this feature, the rear window defogger uses a warming grid to clear fog from the rear window.

The button is located on the center of the instrument panel, near the vehicle's comfort controls.

The rear window defogger will only work when the ignition is in ON.

(Rear Defogger): Press the defogger button to turn the rear window defogger on or off. An indicator light in the button will come on to let your know that the rear window defogger is activated. Be sure to clear as much snow from the rear window as possible.

The rear window defogger will turn off automatically about 15 minutes after the button is pressed.
The defogger can also be turned off by pressing the button again or by turning off the engine.

Notice: **Using a razor blade or sharp object to clear the inside rear window may damage the rear window defogger. Repairs would not be covered by your warranty. Do not clear the inside of the rear window with sharp objects.**

Outlet Adjustment

Use the air outlets located in the center and outboard sides of the instrument panel, to change the direction and amount of the air flowing through the vents.

Operation Tips

- Clear away any ice, snow or leaves from the air inlets at the base of the windshield that may block the flow of air into your vehicle.
- Use of non-GM approved hood deflectors may adversely affect the performance of the system.
- Keep the path under the front seats clear of objects to help circulate the air inside of your vehicle more effectively.
- If the airflow seems low when the fan is at the highest setting, the passenger compartment air filters, if equipped, may need to be replaced. For more information, see “Passenger Compartment Air Filter” following and *Short Trip/City Scheduled Maintenance on page 6-7*.

Passenger Compartment Air Filter

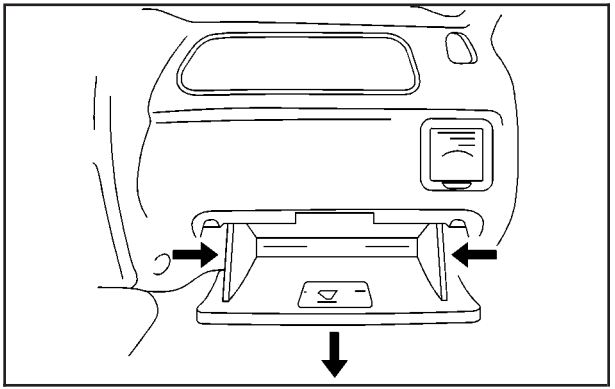
All models come equipped from the factory with a slot in the ventilation system that is ready to accept passenger compartment air filters. These filters are available for purchase from your dealer. You will need to install two filters to provide the proper filtration.

Both outside and recirculated air flows through these filters and removes certain contaminates including pollen and dust particles.

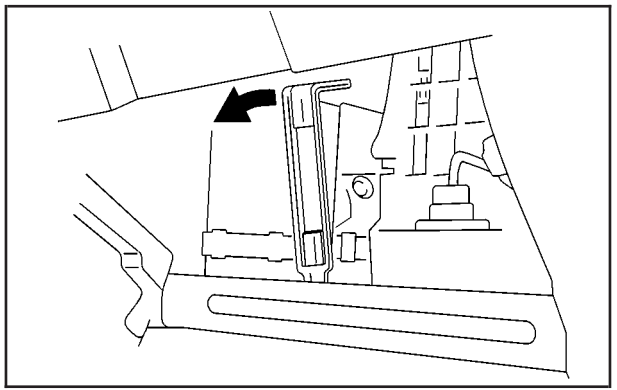
Reductions in airflow which occur more quickly in dusty areas, may indicate that the filters need to be replaced earlier than listed in the maintenance schedule. For how often to replace your air filters, see *Maintenance Requirements on page 6-2*.

The access panel for the air filters is behind the glove box.

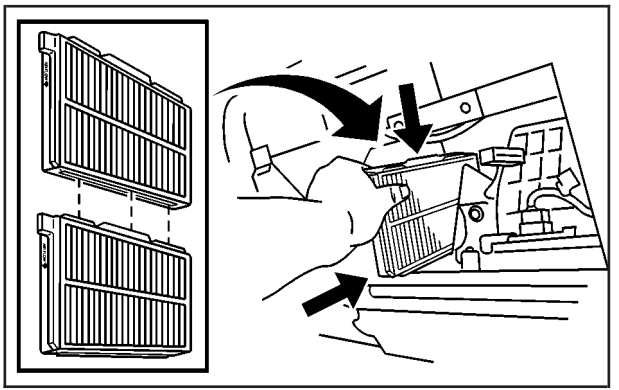
To install the air filters, do the following:



1. Lower the glove box door, then push in the sides of the glove box to completely lower the door to allow access to the slot where the air filters will be installed.



2. Lift the top tab on the cover to remove the filter cover.



3. Install the lower filter by dropping it down into the slot. The grooves on the two filters must be lined up with each other as well as with the ventilation housing in order to install the filters properly. The tabs on the filters should face outward towards you and should be at the top of the filters. The arrows on the filters should point to the driver's side of the vehicle.
4. Then line up the grooves of the second filter with the lower one and slide it in on top of the lower one.
5. Reverse the steps to remove the air filters and then install new ones.

Once you remove the filter, if you choose not to replace it, it will not damage your vehicle. However, the air will no longer be filtered.

Warning Lights, Gages and Indicators

This part describes the warning lights and gages that may be on your vehicle. The pictures will help you locate them.

Warning lights and gages can signal that something is wrong before it becomes serious enough to cause an expensive repair or replacement. Paying attention to your warning lights and gages could also save you or others from injury.

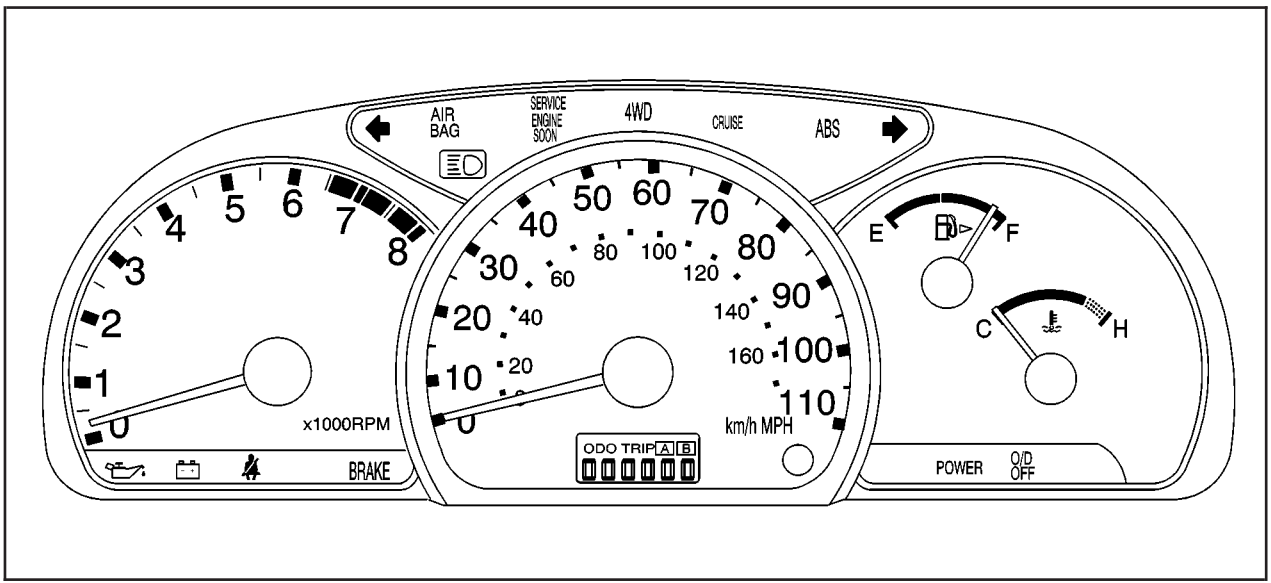
Warning lights come on when there may be or is a problem with one of your vehicle's functions. As you will see in the details on the next few pages, some warning lights come on briefly when you start the engine just to let you know they're working. If you are familiar with this section, you should not be alarmed when this happens.

Gages can indicate when there may be or is a problem with one of your vehicle's functions. Often gages and warning lights work together to let you know when there's a problem with your vehicle.

When one of the warning lights comes on and stays on when you are driving, or when one of the gages shows there may be a problem, check the section that tells you what to do about it. Please follow this manual's advice. Waiting to do repairs can be costly – and even dangerous. So please get to know your warning lights and gages. They're a big help.

Instrument Panel Cluster

Your instrument cluster is designed to let you know at a glance how your vehicle is running. You'll know how fast you're going, about how much fuel you have left, and many other things you'll need to know to drive safely and economically.



United States cluster shown, Canada similar

Speedometer and Odometer

Your speedometer lets you see your speed in both miles per hour (mph) and kilometers per hour (km/h). Your odometer shows how far your vehicle has been driven, in either miles (used in the United States) or kilometers (used in Canada).

Your vehicle's odometer is tamper-resistant.

You may wonder what happens if your vehicle needs a new odometer installed. The new one is set at zero. Then a label is attached on the driver's door to show the old reading and when the new one was installed.

Trip Odometer

The trip odometer can tell you how far your vehicle has been driven since you last set the trip odometer to zero. The button located to the right of the odometer display allows you to switch between the odometer and the two trip odometers. Press the button once to switch to TRIP A and again to switch to TRIP B. To return the display to the odometer reading, press the trip odometer button again.

To set the trip odometers to zero, press and hold the button.

Tachometer

The tachometer shows engine speed in thousands of revolutions per minute (rpm). You can use it while driving to select correct shift points. The tachometer may not return to zero when the engine is not running.

Notice: **If you operate the engine with the tachometer in the shaded warning area, your vehicle could be damaged, and the damages would not be covered by your warranty. Do not operate the engine with the tachometer in the shaded warning area.**

Safety Belt Reminder Light

When the key is turned to ON or START, a tone will come on for several seconds to remind people to fasten their safety belts, unless the driver's safety belt is already buckled.

The safety belt light will also come on and stay on until the driver's belt is buckled.

Air Bag Readiness Light

There is an air bag readiness light on the instrument panel, which shows AIR BAG. The system checks the air bag's electrical system for malfunctions. The light tells you if there is an electrical problem. The system check includes the air bag modules, and the crash sensing and diagnostic module. For more information on the air bag system, see *Supplemental Restraint System (SRS) on page 1-54*.

This light will come on when you start your vehicle, and it will flash for a few seconds. Then the light should go out. This means the system is ready.

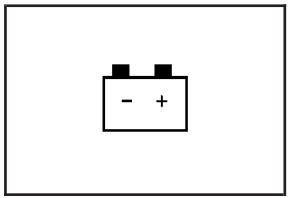
If the air bag readiness light stays on after you start the vehicle or comes on when you are driving, your air bag system may not work properly. Have your vehicle serviced right away.

⚠ CAUTION:

If the air bag readiness light stays on after you start your vehicle, it means the air bag system may not be working properly. The air bags in your vehicle may not inflate in a crash, or they could even inflate without a crash. To help avoid injury to yourself or others, have your vehicle serviced right away if the air bag readiness light stays on after you start your vehicle.

The air bag readiness light should flash for a few seconds when you turn the ignition key to ON. If the light doesn't come on then, have it fixed so it will be ready to warn you if there is a problem.

Charging System Light



This light will come on briefly when you turn on the ignition, but the engine is not running, as a check to show you it is working. Then it should go out when the engine starts.

If the light stays on or comes on while you are driving, you may have a problem with the electrical charging system. It could indicate that you have an electrical problem. Have it checked right away. Driving while this light is on could drain your battery.

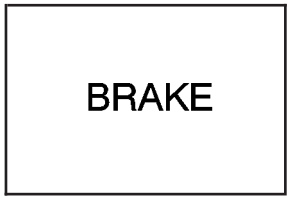
If you must drive a short distance with this light on, be certain to turn off all your accessories, such as the radio and air conditioner.

Brake System Warning Light

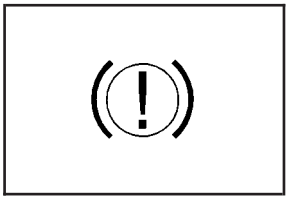
When the ignition is on, the brake system warning light will come on when you set your parking brake. The light will stay on if your parking brake doesn't release fully. If it stays on after your parking brake is fully released, it means you have a brake problem.

Your vehicle's hydraulic brake system is divided into two parts. If one part isn't working, the other part can still work and stop you. For good braking, though, you need both parts working well.

If the warning light comes on, there could be a brake problem. Have your brake system inspected right away.



United States



Canada

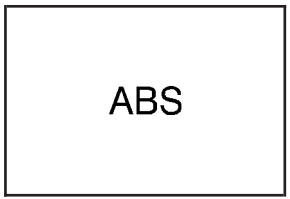
This light should come on when you turn the ignition key to START. If it doesn't come on then, have it fixed so it will be ready to warn you if there's a problem.

If the light comes on while you are driving, pull off the road and stop carefully. You may notice that the pedal is harder to push. Or, the pedal may go closer to the floor. It may take longer to stop. If the light is still on, have the vehicle towed for service. See "Anti-Lock Brake System Warning Light" following and *Towing Your Vehicle on page 4-47*.

⚠ CAUTION:

Your brake system may not be working properly if the brake system warning light is on. Driving with the brake system warning light on can lead to an accident. If the light is still on after you have pulled off the road and stopped carefully, have the vehicle towed for service.

Anti-Lock Brake System Warning Light



With the anti-lock brake system, this light will come on when you start your engine and it will stay on for three seconds. That's normal.

If the light comes on when you're driving, you don't have anti-lock brakes and there could be a problem with your regular brakes. Pull off the road and stop carefully. You may notice that the pedal is harder to push. Or, the pedal may go closer to the floor. It may take longer to stop. Have the vehicle towed for service. See *Towing Your Vehicle on page 4-47*.

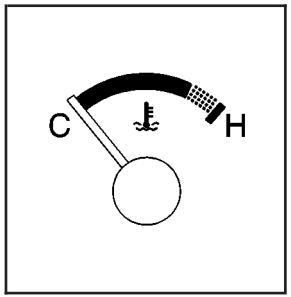
⚠ CAUTION:

Your regular brake system may not be working properly if the anti-lock brake system warning light is on. Driving with the anti-lock brake system warning light on can lead to an accident. After you have pulled off the road and stopped carefully, have the vehicle towed for service.

If the anti-lock brake system warning light stays on longer than normal after you've started your engine, turn the ignition off. Or, if the light comes on and stays on when you're driving, stop as soon as possible and turn the ignition off. Then start the engine again to reset the system. If the light still stays on, or comes on again while you're driving, your vehicle needs service. If the light is on and the regular brake system warning light isn't on, you still have brakes, but you don't have anti-lock brakes.

The anti-lock brake system warning light should come on briefly when you turn the ignition key to ON. If the light doesn't come on then, have it fixed so it will be ready to warn you if there is a problem.

Engine Coolant Temperature Gage



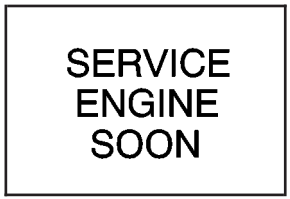
This gage shows the engine coolant temperature. If the gage pointer moves to the H (red) side, your engine is too hot.

It means that your engine coolant has overheated and you should stop your vehicle and turn off the engine as soon as possible.

See *Engine Overheating on page 5-31*.

Malfunction Indicator Lamp

Service Engine Soon Light



Your vehicle is equipped with a computer which monitors operation of the fuel, ignition and emission control systems.

This system is called OBD II (On-Board Diagnostics-Second Generation) and is intended to assure that emissions are at acceptable levels for the life of the vehicle, helping to produce a cleaner environment. The SERVICE ENGINE SOON light comes on to indicate that there is a problem and service is required. Malfunctions often will be indicated by the system before any problem is apparent. This may prevent more serious damage to your vehicle. This system is also designed to assist your service technician in correctly diagnosing any malfunction.

Notice: **If you keep driving your vehicle with this light on, after a while, your emission controls may not work as well, your fuel economy may not be as good and your engine may not run as smoothly. This could lead to costly repairs that may not be covered by your warranty.**

Notice: **Modifications made to the engine, transmission, exhaust, intake or fuel system of your vehicle or the replacement of the original tires with other than those of the same Tire Performance Criteria (TPC) can affect your vehicle's emission controls and may cause this light to come on. Modifications to these systems could lead to costly repairs not covered by your warranty. This may also result in a failure to pass a required Emission Inspection/Maintenance test.**

This light should come on, as a check to show you it is working, when the ignition is on and the engine is not running. If the light does not come on, have it repaired. This light will also come on during a malfunction in one of two ways:

- **Light Flashing** — A misfire condition has been detected. A misfire increases vehicle emissions and may damage the emission control system on your vehicle. Diagnosis and service may be required.
- **Light On Steady** — An emission control system malfunction has been detected on your vehicle. Diagnosis and service may be required.

If the Light Is Flashing

The following may prevent more serious damage to your vehicle:

- Reducing vehicle speed.
- Avoiding hard accelerations.
- Avoiding steep uphill grades.
- If you are towing a trailer, reduce the amount of cargo being hauled as soon as it is possible.

If the light stops flashing and remains on steady, see "If the Light Is On Steady" following.

If the light continues to flash, when it is safe to do so, *stop the vehicle.* Find a safe place to park your vehicle. Turn the key off, wait at least 10 seconds and restart the engine. If the light remains on steady, see "If the Light Is On Steady" following. If the light is still flashing, follow the previous steps, and see your dealer for service as soon as possible.

If the Light Is On Steady

You may be able to correct the emission system malfunction by considering the following:

Did you recently put fuel into your vehicle?

If so, reinstall the fuel cap, making sure to fully install the cap. See *Filling Your Tank on page 5-6*. The diagnostic system can determine if the fuel cap has been left off or improperly installed. A loose or missing fuel cap will allow fuel to evaporate into the atmosphere. A few driving trips with the cap properly installed should turn the light off.

Did you just drive through a deep puddle of water?

If so, your electrical system may be wet. The condition will usually be corrected when the electrical system dries out. A few driving trips should turn the light off.

Have you recently changed brands of fuel?

If so, be sure to fuel your vehicle with quality fuel. See *Gasoline Octane on page 5-4*. Poor fuel quality will cause your engine not to run as efficiently as designed. You may notice this as stalling after start-up, stalling when you put the vehicle into gear, misfiring, hesitation on acceleration or stumbling on acceleration. (These conditions may go away once the engine is warmed up.) This will be detected by the system and cause the light to turn on.

If you experience one or more of these conditions, change the fuel brand you use. It will require at least one full tank of the proper fuel to turn the light off.

If none of the above steps have made the light turn off, your dealer can check the vehicle. Your dealer has the proper test equipment and diagnostic tools to fix any mechanical or electrical problems that may have developed.

Emissions Inspection and Maintenance Programs

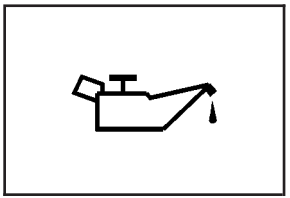
Some state/provincial and local governments have or may begin programs to inspect the emission control equipment on your vehicle. Failure to pass this inspection could prevent you from getting a vehicle registration.

Here are some things you need to know to help your vehicle pass an inspection:

Your vehicle will not pass this inspection if the SERVICE ENGINE SOON light is on or not working properly.

Your vehicle will not pass this inspection if the OBD (on-board diagnostic) system determines that critical emission control systems have not been completely diagnosed by the system. The vehicle would be considered not ready for inspection. This can happen if you have recently replaced your battery or if your battery has run down. The diagnostic system is designed to evaluate critical emission control systems during normal driving. This may take several days of routine driving. If you have done this and your vehicle still does not pass the inspection for lack of OBD system readiness, your GM dealer can prepare the vehicle for inspection.

Oil Pressure Light



If you have a problem with your oil, this light may stay on after you start your engine, or come on when you are driving.

This indicates that there is not enough pressure to keep your engine properly lubricated and cool. The engine could be low on oil, or have some other oil related problem. Have it fixed right away.

The oil light could also come on in three other situations.

- When the ignition is on but the engine is not running, the light will come on as a test to show you it is working, but the light will go out when you turn the engine to START. If it doesn't come on with the ignition on, you may have a problem with the fuse or bulb. Have it fixed right away.

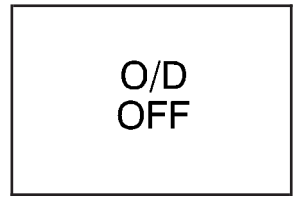
- Sometimes when the engine is idling at a stop, the light may blink on and off. This is normal.
- If you make a hard stop, the light may come on for a moment. This is normal.

⚠ CAUTION:

Do not keep driving if the oil pressure is low. If you do, your engine can become so hot that it catches fire. You or others could be burned. Check your oil as soon as possible and have your vehicle serviced.

Notice: **Damage to your engine from neglected oil problems can be costly and is not covered by your warranty.**

Overdrive Off Light



This light comes on when the automatic four-speed transmission, if equipped, has been converted to the three-speed mode and the overdrive is turned off.

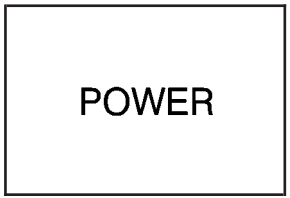
This light also comes on as a check for about five seconds when the ignition key is turned to ON or START.

Four-Wheel-Drive Light

If you have four-wheel drive, this light comes on when the ignition switch is on and the transfer case lever is in one of the four-wheel drive positions.

See *Four-Wheel Drive on page 5-53*.

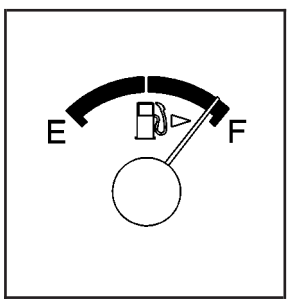
Power Indicator Light



This light comes on when the power mode selector switch, if equipped, is turned to P (power) with the ignition switch in the ON position.

This light comes on as a check for about five seconds when the ignition key is turned to ON or START.

Fuel Gage



Your fuel gage shows about how much fuel is in your tank. When the gage first indicates E (empty), you still have about one or two gallons (4 to 8 L) of fuel left in your tank, but you need to get more right away.

Here are four concerns some owners have had about the fuel gage. All these situations are normal and do not indicate that anything is wrong with the fuel gage.

- At the gas station, the fuel pump shuts off before the gage reads F (full).
- It takes more (or less) fuel to fill up than the gage reads. For example, the gage reads half full, but it took more (or less) than half of the tank's capacity to fill it.
- The gage moves a little when you turn, stop or speed up.
- When you turn the engine off, the gage doesn't go back to E (empty).
- It takes several minutes for the gage to read F (full) after filling the tank.

Audio System(s)

Notice: **Before you add any sound equipment to your vehicle – like a tape player, CB radio, mobile telephone or two-way radio – be sure you can add what you want. If you can, it's very important to do it properly. Added sound equipment may interfere with the operation of your vehicle's engine, radio or other systems, and even damage them. Your vehicle's systems may interfere with the operation of sound equipment that has been added improperly.**

So, before adding sound equipment, check with your dealer and be sure to check federal rules covering mobile radio and telephone units.

Some models do not include a radio, however all models come with four speakers, an antenna and all of the wiring needed to install a radio.

Notice: **Any non-factory installed radios are not covered by your vehicle's warranty.**

Your audio system has been designed to operate easily and to give years of listening pleasure. You will get the most enjoyment out of it if you acquaint yourself with it first. Figure out which radio you have in your vehicle, find out what your audio system can do and how to operate all of its controls to be sure you're getting the most out of the advanced engineering that went into it.

Setting the Time

Press and hold the HR or MIN arrow for two seconds. Then press the HR arrow until the correct hour appears on the display. Press and hold the MIN arrow until the correct minute appears. The time may be set with the ignition on or off.

Radio with CD

Playing the Radio

PWR (Power): Press this knob to turn the system on and off.

VOL (Volume): Turn the knob to increase or to decrease volume.

RCL (Recall): Press this knob to switch the display between time and radio station frequency. Time display is available with the ignition turned off.

Finding a Station

AM FM: Press this button to switch between AM, FM1 and FM2. The display will show your selection.

TUNE: Turn this knob to choose radio stations.

◁ **SEEK** ▷ **:** Press the right or the left arrow to seek to the next or to the previous station and stay there.

To scan stations, press and hold one of the SEEK arrows for two seconds until you hear a beep. The radio will go to a station, play for a few seconds and flash the station frequency, then go on to the next station. Press one of the SEEK arrows again to stop scanning.

To scan preset stations, press and hold one of the SEEK arrows for more than four seconds until you hear two beeps. The radio will go to the first preset station stored on your pushbuttons, play for a few seconds and flash the station frequency, then go on to the next preset station. Press one of the SEEK arrows again to stop scanning presets.

The radio will seek and scan only to stations that are in the selected band and only to those with a strong signal.

Setting Preset Stations

The six numbered pushbuttons let you return to your favorite stations. You can set up to 18 stations (six AM, six FM1 and six FM2) by performing the following steps:

1. Turn the radio on.
2. Press AM FM to select AM, FM1 or FM2.
3. Tune in the desired station.
4. Press and hold one of the six numbered pushbuttons until you hear a beep. Whenever you press that numbered pushbutton, the station you set will return.
5. Repeat the steps for each pushbutton.

Setting the Tone (Bass/Treble)

AUDIO: To adjust the bass or the treble, press and release the AUDIO button repeatedly until BAS or TRE appears on the display. Then press and hold the up or the down arrow to increase or to decrease. If a station is weak or noisy, you may want to decrease the treble.

To adjust bass or treble to the middle position, select BAS or TRE. Then press and hold the AUDIO button for more than two seconds until you hear a beep. B and a zero or T and a zero will appear on the display.

To adjust both tone controls and both speaker controls to the middle position, first end out of audio mode by pressing another button, causing the radio to perform that function, or by waiting five seconds for the display to return to time of day. Then press and hold the AUDIO button for more than two seconds until you hear a beep. CEN will appear on the display.

Adjusting the Speakers (Balance/Fade)

AUDIO: To adjust the balance between the right and the left speakers, press and release the AUDIO button until BAL appears on the display. Then press and hold the up or the down arrow to move the sound toward the right or the left speakers.

To adjust the fade between the front and rear speakers, press and release the AUDIO button until FAD appears on the display. Then press and hold the up or the down arrow to move the sound toward the front or the rear speakers.

To adjust balance or fade to the middle position, select BAL or FAD. Then press and hold AUDIO for more than two seconds until you hear a beep. L and a zero or F and a zero will appear on the display.

To adjust both tone controls and both speaker controls to the middle position, first end out of audio mode by pressing another button, causing the radio to perform that function, or by waiting five seconds for the display to return to time of day. Then press and hold AUDIO for more than two seconds until you hear a beep. CEN will appear on the display.

Radio Messages

CAL (Calibration): Your audio system has been calibrated for your vehicle from the factory. If CAL appears on the display it means that your radio has not been configured properly for your vehicle and must be returned to the dealership for service.

Playing a Compact Disc

Insert a disc partway into the slot, label side up. The player will pull it in. The disc should begin playing. The display will show CD. If you want to insert a compact disc with the ignition off, first press RCL or the eject button.

The integral CD player can play the smaller 8 cm single discs with an adapter ring. Full-size compact discs and the smaller discs are loaded in the same manner.

If playing a CD-R the sound quality may be reduced due to CD-R quality, the method of recording, the quality of the music that has been recorded and the way the CD-R has been handled. You may experience an increase in skipping, difficulty in finding tracks and/or difficulty in loading and ejecting. If these problems occur try a known good CD.

Do not add paper labels to discs, they could get caught in the CD player.

Do not play 3 inch discs without a standard adapter disc.

If an error appears on the display, see “Compact Disc Messages” later in this section.

1 PREV (Previous): Press this pushbutton to go to the previous track if the current track has been playing for less than eight seconds. If pressed when the current track has been playing for more than eight seconds, it will go to the beginning of the current track. The track number will appear on the display. If you hold the pushbutton or press it more than once, the player will continue moving back through the disc.

2 NEXT: Press this pushbutton to go to the next track. The track number will appear on the display. If you hold the pushbutton or press it more than once, the player will continue moving forward through the disc.

3 REV (Reverse): Press and hold this pushbutton to reverse quickly within a track. Release it to play the passage. The display will show elapsed time while reversing.

4 FWD (Forward): Press and hold this pushbutton to advance quickly within a track. Release it to play the passage. The display will show elapsed time while forwarding.

5 RDM (Random): Press this pushbutton to hear the tracks in random, rather than sequential, order. RND will appear on the display. Press RDM again to turn off random play. OFF will appear on the display.

6 RPT (Repeat): Press this pushbutton once to hear a track over again. RPT will appear on the display. The current track will continue to repeat. Press RPT again to turn off repeated play. OFF will appear on the display.

◁ **SEEK** ▷ **:** Press the right or the left arrow to go to the next or to the previous track. The track number will appear on the display.

RCL (Recall): Press this knob to see the current track number or how long the current track has been playing.

AM FM: Press this button to play the radio when a disc is in the player. The disc will stop but remain in the player.

CD: With a compact disc in the player and the radio playing, press this button to play the compact disc. CD will appear on the display.

⏏ **(Eject):** Press this button to eject a CD. Eject may be activated with either the ignition or radio off. CDs may be loaded with the radio and ignition off if this button is pressed first.

Compact Disc Messages

If the disc comes out, it could be for one of the following reasons:

- You're driving on a very rough road. When the road becomes smoother, the disc should play.
- It's very hot. When the temperature returns to normal, the disc should play.
- The disc is dirty, scratched, wet or upside down.
- The air is very humid. If so, wait about an hour and try again.
- There may have been a problem while burning the CD.
- The label may be caught in the CD player.

If the CD is not playing correctly, for any other reason, try a known good CD.

If any error occurs repeatedly or if an error can't be corrected, contact your dealer.

Understanding Radio Reception

AM

The range for most AM stations is greater than for FM, especially at night. The longer range, however, can cause stations to interfere with each other. AM can pick up noise from things like storms and power lines. Try reducing the treble to reduce this noise.

FM

FM stereo will give you the best sound, but FM signals will reach only about 10 to 40 miles (16 to 65 km). Tall buildings or hills can interfere with FM signals, causing the sound to come and go.

Care of Your CDs

Handle CDs carefully. Store them in their original cases or other protective cases and away from direct sunlight and dust. If the surface of a CD is soiled, dampen a clean, soft cloth in a mild, neutral detergent solution and clean it, wiping from the center to the edge.

Be sure never to touch the side without writing when handling CDs. Pick up CDs by grasping the outer edges or the edge of the hole and the outer edge.

Care of Your CD Player

The use of CD lens cleaners for CDs is not advised, due to the risk of contaminating the lens of the CD optics with lubricants internal to the CD mechanism.

Fixed Mast Antenna

The fixed mast antenna can withstand most car washes without being damaged. If the mast should ever become slightly bent, you can straighten it out by hand. If the mast is badly bent you should replace it.

If the mast becomes loose from the antenna base, which is located on the fender, tighten by hand, then with a wrench, one quarter turn.

NOTES

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Your Driving, the Road, and Your Vehicle

Whenever we drive, we are taking on an important responsibility. This is true for any motor vehicle — passenger car, van, truck, sport utility. Driver behavior, the driving environment, and the vehicle's design all affect how well a vehicle performs. But statistics show that the most important factor, by far, is how we drive.

Knowing how these three factors work together can help you understand how your vehicle handles and what you can do to avoid many types of crashes, including a rollover crash.

Driver Behavior

The single most important thing is this: everyone in the vehicle, including the driver, should buckle up. See *Safety Belts: They Are for Everyone on page 1-11*. In fact, most serious injuries and fatalities to unbelted occupants can be reduced or prevented by the use of safety belts. In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. In addition, avoiding excessive speed, sudden or abrupt turns and drunken or aggressive driving can help make trips safer and avoid the possibility of a crash, especially a rollover crash. This section provides many useful tips to help you drive more safely.

Driving Environment

You can also help avoid a rollover or other type of crash by being prepared for driving in inclement weather, at night, or during other times where visibility or traction may be limited (such as on curves, slippery roads or hilly terrain). Unfamiliar surroundings can also have hidden hazards.

To help you learn more about driving in different conditions, this section contains information about city, freeway and off-road driving, as well as other hints for driving in various weather conditions.

Vehicle Design

According to the U.S. Department of Transportation, utility vehicles have a significantly higher rollover rate than other types of vehicles. Utility vehicles do have higher ground clearance and a narrower track or shorter wheelbase than passenger cars, to make them more capable for off-road driving. Specific design characteristics like these give the driver a better view of the road, but also give utility vehicles a higher center of gravity than other types of vehicles. This means that you should not expect a utility vehicle to handle the same way a vehicle with a lower center of gravity, like a car, would in similar situations.

But driver behavior factors are far more often the cause of a utility vehicle rollover than are environmental or vehicle factors. Safe driver behavior and understanding the environment in which you will be driving can help avoid a rollover crash in any type of vehicle, including utility vehicles.

Defensive Driving

The best advice anyone can give about driving is: Drive defensively.

Please start with a very important safety device in your vehicle: Buckle up. See *Safety Belts: They Are for Everyone on page 1-11*.

Defensive driving really means “be ready for anything.” On city streets, rural roads or freeways, it means “always expect the unexpected.”

Assume that pedestrians or other drivers are going to be careless and make mistakes. Anticipate what they might do. Be ready for their mistakes.

Rear-end collisions are about the most preventable of accidents. Yet they are common. Allow enough following distance. It is the best defensive driving maneuver, in both city and rural driving. You never know when the vehicle in front of you is going to brake or turn suddenly.

Defensive driving requires that a driver concentrate on the driving task. Anything that distracts from the driving task — such as concentrating on a cellular telephone call, reading, or reaching for something on the floor — makes proper defensive driving more difficult and can even cause a collision, with resulting injury. Ask a passenger to help do things like this, or pull off the road in a safe place to do them yourself. These simple defensive driving techniques could save your life.

Drunken Driving

Death and injury associated with drinking and driving is a national tragedy. It is the number one contributor to the highway death toll, claiming thousands of victims every year.

Alcohol affects four things that anyone needs to drive a vehicle:

- Judgment
- Muscular Coordination
- Vision
- Attentiveness.

Police records show that almost half of all motor vehicle-related deaths involve alcohol. In most cases, these deaths are the result of someone who was drinking and driving. In recent years, more than 16,000 annual motor vehicle-related deaths have been associated with the use of alcohol, with more than 300,000 people injured.

Many adults — by some estimates, nearly half the adult population — choose never to drink alcohol, so they never drive after drinking. For persons under 21, it is against the law in every U.S. state to drink alcohol. There are good medical, psychological and developmental reasons for these laws.

The obvious way to eliminate the leading highway safety problem is for people never to drink alcohol and then drive. But what if people do? How much is “too much” if someone plans to drive? It is a lot less than many might think. Although it depends on each person and situation, here is some general information on the problem.

The Blood Alcohol Concentration (BAC) of someone who is drinking depends upon four things:

- The amount of alcohol consumed
- The drinker’s body weight
- The amount of food that is consumed before and during drinking
- The length of time it has taken the drinker to consume the alcohol.

According to the American Medical Association, a 180 lb (82 kg) person who drinks three 12 ounce (355 ml) bottles of beer in an hour will end up with a BAC of about 0.06 percent. The person would reach the same BAC by drinking three 4 ounce (120 ml) glasses of wine or three mixed drinks if each had 1-1/2 ounces (45 ml) of liquors like whiskey, gin or vodka.

It is the amount of alcohol that counts. For example, if the same person drank three double martinis (3 ounces or 90 ml of liquor each) within an hour, the person's BAC would be close to 0.12 percent. A person who consumes food just before or during drinking will have a somewhat lower BAC level.

There is a gender difference, too. Women generally have a lower relative percentage of body water than men. Since alcohol is carried in body water, this means that a woman generally will reach a higher BAC level than a man of her same body weight will when each has the same number of drinks.

The law in an increasing number of U.S. states, and throughout Canada, sets the legal limit at 0.08 percent. In some other countries, the limit is even lower. For example, it is 0.05 percent in both France and Germany. The BAC limit for all commercial drivers in the United States is 0.04 percent.

The BAC will be over 0.10 percent after three to six drinks (in one hour). Of course, as we have seen, it depends on how much alcohol is in the drinks, and how quickly the person drinks them.

But the ability to drive is affected well below a BAC of 0.10 percent. Research shows that the driving skills of many people are impaired at a BAC approaching 0.05 percent, and that the effects are worse at night. All drivers are impaired at BAC levels above 0.05 percent. Statistics show that the chance of being in a collision increases sharply for drivers who have a BAC of 0.05 percent or above. A driver with a BAC level of 0.06 percent has doubled his or her chance of having a collision. At a BAC level of 0.10 percent, the chance of this driver having a collision is 12 times greater; at a level of 0.15 percent, the chance is 25 times greater!

The body takes about an hour to rid itself of the alcohol in one drink. No amount of coffee or number of cold showers will speed that up. “I will be careful” is not the right answer. What if there is an emergency, a need to take sudden action, as when a child darts into the street? A person with even a moderate BAC might not be able to react quickly enough to avoid the collision.

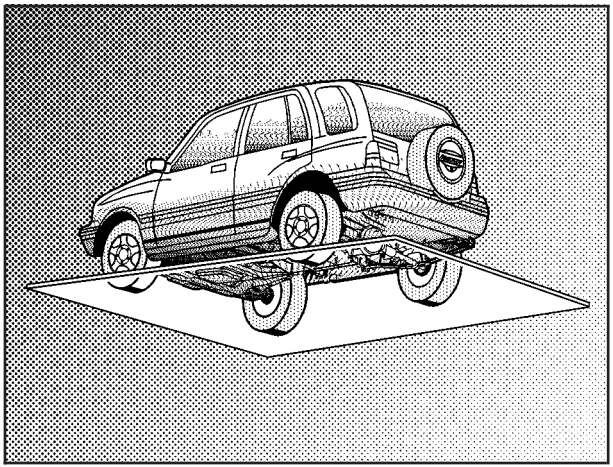
There is something else about drinking and driving that many people do not know. Medical research shows that alcohol in a person’s system can make crash injuries worse, especially injuries to the brain, spinal cord or heart. This means that when anyone who has been drinking — driver or passenger — is in a crash, that person’s chance of being killed or permanently disabled is higher than if the person had not been drinking.

⚠ CAUTION:

Drinking and then driving is very dangerous. Your reflexes, perceptions, attentiveness and judgment can be affected by even a small amount of alcohol. You can have a serious — or even fatal — collision if you drive after drinking. Please do not drink and drive or ride with a driver who has been drinking. Ride home in a cab; or if you are with a group, designate a driver who will not drink.

Control of a Vehicle

You have three systems that make your vehicle go where you want it to go. They are the brakes, the steering and the accelerator. All three systems have to do their work at the places where the tires meet the road.



Sometimes, as when you are driving on snow or ice, it is easy to ask more of those control systems than the tires and road can provide. That means you can lose control of your vehicle.

Braking

Braking action involves *perception time* and *reaction time.*

First, you have to decide to push on the brake pedal. That is *perception time.* Then you have to bring up your foot and do it. That is *reaction time.*

Average *reaction time* is about 3/4 of a second. But that is only an average. It might be less with one driver and as long as two or three seconds or more with another. Age, physical condition, alertness, coordination and eyesight all play a part. So do alcohol, drugs and frustration.
But even in 3/4 of a second, a vehicle moving at 60 mph (100 km/h) travels 66 feet (20 m). That could be a lot of distance in an emergency, so keeping enough space between your vehicle and others is important.

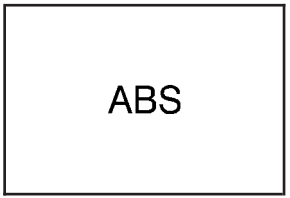
And, of course, actual stopping distances vary greatly with the surface of the road (whether it is pavement or gravel); the condition of the road (wet, dry, icy); tire tread; the condition of your brakes; the weight of the vehicle and the amount of brake force applied.

Avoid needless heavy braking. Some people drive in spurts — heavy acceleration followed by heavy braking — rather than keeping pace with traffic. This is a mistake. Your brakes may not have time to cool between hard stops. Your brakes will wear out much faster if you do a lot of heavy braking. If you keep pace with the traffic and allow realistic following distances, you will eliminate a lot of unnecessary braking. That means better braking and longer brake life.

If your engine ever stops while you are driving, brake normally but do not pump your brakes. If you do, the pedal may get harder to push down. If your engine stops, you will still have some power brake assist. But you will use it when you brake. Once the power assist is used up, it may take longer to stop and the brake pedal will be harder to push.

Anti-lock Brake System (ABS)

Your vehicle may have anti-lock brakes. ABS is an advanced electronic braking system that will help prevent a braking skid.



If your vehicle has anti-lock brakes, this warning light on the instrument panel will come on briefly when you start your vehicle.

When you start your engine, or when you begin to drive away, your anti-lock brake system will check itself. You may hear a momentary motor or clicking noise while this test is going on, and you may even notice that your brake pedal moves or pulses a little. This is normal.

If there is a problem with the anti-lock brake system, the anti-lock brake system warning light will stay on. See *Anti-Lock Brake System Warning Light on page 3-30*.

Let us say the road is wet and you are driving safely. Suddenly, an animal jumps out in front of you. You slam on the brakes and continue braking. Here is what happens with ABS:

A computer senses that wheels are slowing down. If one of the wheels is about to stop rolling, the computer will separately work the brakes at each front wheel and at both rear wheels.

The anti-lock system can change the brake pressure faster than any driver could. The computer is programmed to make the most of available tire and road conditions. This can help you steer around the obstacle while braking hard.

As you brake, your computer keeps receiving updates on wheel speed and controls braking pressure accordingly.

Remember: Anti-lock does not change the time you need to get your foot up to the brake pedal or always decrease stopping distance. If you get too close to the vehicle in front of you, you will not have time to apply your brakes if that vehicle suddenly slows or stops. Always leave enough room up ahead to stop, even though you have anti-lock brakes.

Using Anti-Lock

Do not pump the brakes. Just hold the brake pedal down firmly and let anti-lock work for you. You may feel a slight brake pedal pulsation or notice some noise, but this is normal.

Braking in Emergencies

At some time, nearly every driver gets into a situation that requires hard braking.

If you have anti-lock, you can steer and brake at the same time. However, if you do not have anti-lock, your first reaction — to hit the brake pedal hard and hold it down — may be the wrong thing to do. Your wheels can stop rolling. Once they do, the vehicle can not respond to your steering. Momentum will carry it in whatever direction it was headed when the wheels stopped rolling. That could be off the road, into the very thing you were trying to avoid, or into traffic.

If you do not have anti-lock, use a “squeeze” braking technique. This will give you maximum braking while maintaining steering control. You can do this by pushing on the brake pedal with steadily increasing pressure.

In an emergency, you will probably want to squeeze the brakes hard without locking the wheels. If you hear or feel the wheels sliding, ease off the brake pedal. This will help you retain steering control. If you *do* have anti-lock, it is different. See “Anti-Lock Brake System” in this section.

In many emergencies, steering can help you more than even the very best braking.

Steering

Power Steering

If you lose power steering assist because the engine stops or the system is not functioning, you can steer but it will take much more effort.

Steering Tips

Driving on Curves

It is important to take curves at a reasonable speed.

A lot of the “driver lost control” accidents mentioned on the news happen on curves.

Here is why:

Experienced driver or beginner, each of us is subject to the same laws of physics when driving on curves. The traction of the tires against the road surface makes it possible for the vehicle to change its path when you turn the front wheels. If there is no traction, inertia will keep the vehicle going in the same direction. If you have ever tried to steer a vehicle on wet ice, you will understand this.

The traction you can get in a curve depends on the condition of your tires and the road surface, the angle at which the curve is banked, and your speed. While you are in a curve, speed is the one factor you can control.

Suppose you are steering through a sharp curve. Then you suddenly apply the brakes. Both control systems — steering and braking — have to do their work where the tires meet the road. Unless you have four-wheel anti-lock brakes, adding the hard braking can demand too much of those places. You can lose control.

The same thing can happen if you are steering through a sharp curve and you suddenly accelerate. Those two control systems — steering and acceleration — can overwhelm those places where the tires meet the road and make you lose control.

What should you do if this ever happens? Ease up on the brake or accelerator pedal, steer the vehicle the way you want it to go, and slow down.

Speed limit signs near curves warn that you should adjust your speed. Of course, the posted speeds are based on good weather and road conditions. Under less favorable conditions you will want to go slower.

If you need to reduce your speed as you approach a curve, do it before you enter the curve, while your front wheels are straight ahead.

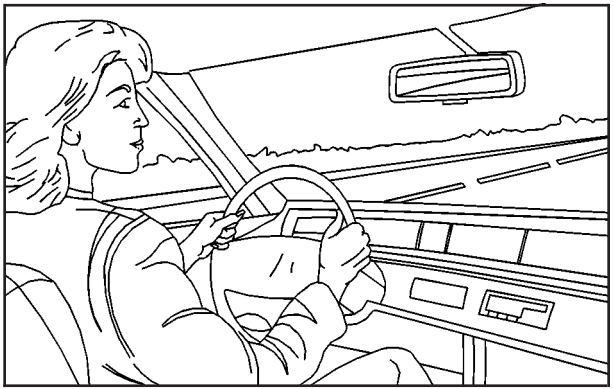
Try to adjust your speed so you can “drive” through the curve. Maintain a reasonable, steady speed. Wait to accelerate until you are out of the curve, and then accelerate gently into the straightaway.

Steering in Emergencies

There are times when steering can be more effective than braking. For example, you come over a hill and find a truck stopped in your lane, or a car suddenly pulls out from nowhere, or a child darts out from between parked cars and stops right in front of you. You can avoid these problems by braking — if you can stop in time. But sometimes you can not; there is not room. That is the time for evasive action — steering around the problem.

Your vehicle can perform very well in emergencies like these. First apply your brakes — but, unless you have anti-lock, not enough to lock your wheels.

See *Braking on page 4-7*. It is better to remove as much speed as you can from a possible collision. Then steer around the problem, to the left or right depending on the space available.

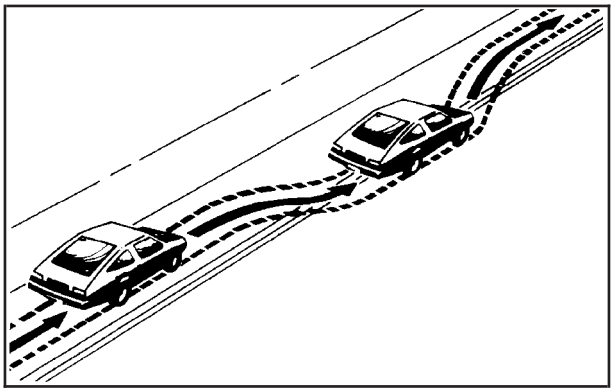


An emergency like this requires close attention and a quick decision. If you are holding the steering wheel at the recommended 9 and 3 o'clock positions, you can turn it a full 180 degrees very quickly without removing either hand. But you have to act fast, steer quickly, and just as quickly straighten the wheel once you have avoided the object.

The fact that such emergency situations are always possible is a good reason to practice defensive driving at all times and wear safety belts properly.

Off-Road Recovery

You may find that your right wheels have dropped off the edge of a road onto the shoulder while you're driving.



If the level of the shoulder is only slightly below the pavement, recovery should be fairly easy. Ease off the accelerator and then, if there is nothing in the way, steer so that your vehicle straddles the edge of the pavement. You can turn the steering wheel up to one-quarter turn until the right front tire contacts the pavement edge. Then turn your steering wheel to go straight down the roadway.

Passing

The driver of a vehicle about to pass another on a two-lane highway waits for just the right moment, accelerates, moves around the vehicle ahead, then goes back into the right lane again. A simple maneuver?

Not necessarily! Passing another vehicle on a two-lane highway is a potentially dangerous move, since the passing vehicle occupies the same lane as oncoming traffic for several seconds. A miscalculation, an error in judgment, or a brief surrender to frustration or anger can suddenly put the passing driver face to face with the worst of all traffic accidents — the head-on collision.

So here are some tips for passing:

- "Drive ahead." Look down the road, to the sides and to crossroads for situations that might affect your passing patterns. If you have any doubt whatsoever about making a successful pass, wait for a better time.
- Watch for traffic signs, pavement markings and lines. If you can see a sign up ahead that might indicate a turn or an intersection, delay your pass. A broken center line usually indicates it is all right to pass (providing the road ahead is clear). Never cross a solid line on your side of the lane or a double solid line, even if the road seems empty of approaching traffic.

- Do not get too close to the vehicle you want to pass while you are awaiting an opportunity. For one thing, following too closely reduces your area of vision, especially if you are following a larger vehicle. Also, you will not have adequate space if the vehicle ahead suddenly slows or stops. Keep back a reasonable distance.
- When it looks like a chance to pass is coming up, start to accelerate but stay in the right lane and do not get too close. Time your move so you will be increasing speed as the time comes to move into the other lane. If the way is clear to pass, you will have a “running start” that more than makes up for the distance you would lose by dropping back. And if something happens to cause you to cancel your pass, you need only slow down and drop back again and wait for another opportunity.
- If other vehicles are lined up to pass a slow vehicle, wait your turn. But take care that someone is not trying to pass you as you pull out to pass the slow vehicle. Remember to glance over your shoulder and check the blind spot.
- Check your mirrors, glance over your shoulder, and start your left lane change signal before moving out of the right lane to pass. When you are far enough ahead of the passed vehicle to see its front in your inside mirror, activate your right lane change signal and move back into the right lane. (Remember that your right outside mirror is convex. The vehicle you just passed may seem to be farther away from you than it really is.)
- Try not to pass more than one vehicle at a time on two-lane roads. Reconsider before passing the next vehicle.
- Do not overtake a slowly moving vehicle too rapidly. Even though the brake lamps are not flashing, it may be slowing down or starting to turn.
- If you are being passed, make it easy for the following driver to get ahead of you. Perhaps you can ease a little to the right.

Loss of Control

Let us review what driving experts say about what happens when the three control systems (brakes, steering and acceleration) do not have enough friction where the tires meet the road to do what the driver has asked.

In any emergency, do not give up. Keep trying to steer and constantly seek an escape route or area of less danger.

Skidding

In a skid, a driver can lose control of the vehicle. Defensive drivers avoid most skids by taking reasonable care suited to existing conditions, and by not “overdriving” those conditions. But skids are always possible.

The three types of skids correspond to your vehicle’s three control systems. In the braking skid, your wheels are not rolling. In the steering or cornering skid, too much speed or steering in a curve causes tires to slip and lose cornering force. And in the acceleration skid, too much throttle causes the driving wheels to spin.

A cornering skid and an acceleration skid are best handled by easing your foot off the accelerator pedal.

If your vehicle starts to slide, ease your foot off the accelerator pedal and quickly steer the way you want the vehicle to go. If you start steering quickly enough, your vehicle may straighten out. Always be ready for a second skid if it occurs.

Of course, traction is reduced when water, snow, ice, gravel or other material is on the road. For safety, you will want to slow down and adjust your driving to these conditions. It is important to slow down on slippery surfaces because stopping distance will be longer and vehicle control more limited.

While driving on a surface with reduced traction, try your best to avoid sudden steering, acceleration or braking (including engine braking by shifting to a lower gear). Any sudden changes could cause the tires to slide. You may not realize the surface is slippery until your vehicle is skidding. Learn to recognize warning clues — such as enough water, ice or packed snow on the road to make a “mirrored surface” — and slow down when you have any doubt.

If you have the anti-lock braking system, remember: It helps avoid only the braking skid. If you do not have anti-lock, then in a braking skid (where the wheels are no longer rolling), release enough pressure on the brakes to get the wheels rolling again. This restores steering control. Push the brake pedal down steadily when you have to stop suddenly. As long as the wheels are rolling, you will have steering control.

Off-Road Driving with Your Four-Wheel-Drive Vehicle

This off-road guide is for vehicles that have four-wheel drive.

Also, see *Braking on page 4-7*.

If your vehicle doesn't have four-wheel drive, you shouldn't drive off-road unless you're on a level, solid surface.

Off-road driving can be great fun. But it does have some definite hazards. The greatest of these is the terrain itself.

"Off-roading" means you've left the great North American road system behind. Traffic lanes aren't marked. Curves aren't banked. There are no road signs. Surfaces can be slippery, rough, uphill or downhill. In short, you've gone right back to nature.

Off-road driving involves some new skills. And that's why it's very important that you read this guide. You'll find many driving tips and suggestions. These will help make your off-road driving safer and more enjoyable.

Before You Go Off-Roading

There are some things to do before you go out. For example, be sure to have all necessary maintenance and service work done. Check to make sure all underbody shields (if so equipped) are properly attached. Be sure you read all the information about your four-wheel-drive vehicle in this manual. Is there enough fuel? Is the spare tire fully inflated? Are the fluid levels up where they should be? What are the local laws that apply to off-roading where you'll be driving? If you don't know, you should check with law enforcement people in the area. Will you be on someone's private land? If so, be sure to get the necessary permission.

Loading Your Vehicle for Off-Road Driving

There are some important things to remember about how to load your vehicle.

- The heaviest things should be on the load floor and forward of your rear axle. Put heavier items as far forward as you can.
- Be sure the load is secured properly, so driving on the off-road terrain doesn't toss things around.

⚠ CAUTION:

- **Cargo on the load floor piled higher than the seatbacks can be thrown forward during a sudden stop. You or your passengers could be injured. Keep cargo below the top of the seatbacks.**
- **Unsecured cargo on the load floor can be tossed about when driving over rough terrain. You or your passengers can be struck by flying objects. Secure the cargo properly.**
- **Heavy loads on the roof raise the vehicle's center of gravity, making it more likely to roll over. You can be seriously or fatally injured if the vehicle rolls over. Put heavy loads inside the cargo area, not on the roof. Keep cargo in the cargo area as far forward and low as possible.**

You'll find other important information in this manual. See *Loading Your Vehicle on page 4-51*, *Luggage Carrier on page 2-36* and *Tires on page 5-59*.

Environmental Concerns

Off-road driving can provide wholesome and satisfying recreation. However, it also raises environmental concerns. We recognize these concerns and urge every off-roader to follow these basic rules for protecting the environment:

- Always use established trails, roads and areas that have been specially set aside for public off-road recreational driving; obey all posted regulations.
- Avoid any driving practice that could damage the environment — shrubs, flowers, trees, grasses — or disturb wildlife (this includes wheel-spinning, breaking down trees or unnecessary driving through streams or over soft ground.)
- Always carry a litter bag — make sure all refuse is removed form any campsite before leaving.
- Take extreme care with open fires (where permitted), camp stoves and lanterns.
- Never park your vehicle over dry grass or other combustible materials that could catch fire form the heat of the vehicle's exhaust system.

Traveling to Remote Areas

It makes sense to plan your trip, especially when going to a remote area. Know the terrain and plan your route. You are much less likely to get bad surprises. Get accurate maps of trails and terrain. Try to learn of any blocked or closed roads.

It's also a good idea to travel with at least one other vehicle. If something happens to one of them, the other can help quickly.

Does your vehicle have a winch? If so, be sure to read the winch instructions. In a remote area, a winch can be handy if you get stuck. But you'll want to know how to use it properly.

Getting Familiar with Off-Road Driving

It's a good idea to practice in an area that's safe and close to home before you go into the wilderness. Off-road driving does require some new and different driving skills. Here's what we mean.

Tune your senses to different kinds of signals. Your eyes, for example, need to constantly sweep the terrain for unexpected obstacles. Your ears need to listen for unusual tire or engine sounds. With your arms, hands, feet and body, you'll need to respond to vibrations and vehicle bounce.

Controlling your vehicle is the key to successful off-road driving. One of the best ways to control your vehicle is to control your speed. Here are some things to keep in mind. At higher speeds:

- you approach things faster and you have less time to scan the terrain for obstacles.
- you have less time to react.
- you have more vehicle bounce when you drive over obstacles.
- you'll need more distance for braking, especially since you're on an unpaved surfaces.

⚠ CAUTION:

When you are driving off-road, bouncing and quick changes in direction can easily throw you out of position. This could cause you to lose control and crash. So, whether you're driving on or off the road, you and your passengers should wear safety belts.

Scanning the Terrain

Off-road driving can take you over many different kinds of terrain. You need to be familiar with the terrain and its many different features. Here are some things to consider.

Surface Conditions: Off-roading can take you over hard-packed dirt, gravel, rocks, grass, sand, mud, snow or ice. Each of these surfaces affects the steering, acceleration and braking of your vehicle in different ways. Depending upon the kind of surface you are on, you may experience slipping, sliding, wheel spinning, delayed acceleration, poor traction and longer braking distances.

Surface Obstacles: Unseen or hidden obstacles can be hazardous. A rock, log, hole, rut or bump can startle you if you're not prepared for them. Often these obstacles are hidden by grass, bushes, snow or even the rise and fall of the terrain itself. Here are some things to consider:

- Is the path ahead clear?
- Will the surface texture change abruptly up ahead?
- Does the travel take you uphill or downhill? (There's more discussion of these subjects later.)
- Will you have to stop suddenly or change direction quickly?

When you drive over obstacles or rough terrain, keep a firm grip on the steering wheel. Ruts, troughs or other surface features can jerk the wheel out of your hands if you're not prepared.

When you drive over bumps, rocks, or other obstacles, your wheels can leave the ground. If this happens, even with one or two wheels, you can't control the vehicle as well or at all.

Because you will be on an unpaved surface, it's especially important to avoid sudden acceleration, sudden turns or sudden braking.

In a way, off-road driving requires a different kind of alertness from driving on paved roads and highways. There are no road signs, posted speed limits or signal lights. You have to use our own good judgment about what is safe and what isn't.

Drinking and driving can be very dangerous on any road. And this is certainly true for off-road driving. At the very time you need special alertness and driving skills, your reflexes, perceptions and judgment can be affected by even a small amount of alcohol. You could have a serious — or even fatal — accident if you drink and drive or ride with a driver who has been drinking. See *Drunken Driving on page 4-4*.

Driving on Off-Road Hills

Off-road driving often takes you up, down or across a hill. Driving safely on hills requires good judgment and an understanding of what your vehicle can and can't do. There are some hills that simply can't be driven, no matter how well built the vehicle.

> **⚠ CAUTION:**
>
> **Many hills are simply too steep for any vehicle. If you drive up them, you will stall. If you drive down them, you can not control your speed. If you drive across them, you will roll over. You could be seriously injured or killed. If you have any doubt about the steepness, do not drive the hill.**

Approaching a Hill

When you approach a hill, you need to decide if it's one of those hills that's just too steep to climb, descend or cross. Steepness can be hard to judge. On a very small hill, for example, there may be a smooth, constant incline with only a small change in elevation where you can easily see all the way to the top. On a large hill, the incline may get steeper as you near the tip, but you may not see this because the crest of the hill is hidden by bushes, grass or shrubs.

Here are some other things to consider as you approach a hill.

- Is there a constant incline, or does the hill get sharply steeper in places?
- Is there good traction on the hillside, or will the surface cause tire slipping?
- Is there a straight path up or down the hill so you won't have to make turning maneuvers?
- Are there obstructions on the hill that can block your path (boulders, trees, logs or ruts)?
- What's beyond the hill? Is there a cliff, an embankment, a drop-off, a fence? Get out and walk the hill if you don't know. It's the smart way to find out.
- Is the hill simply too rough? Steep hills often have ruts, gullies, troughs, and exposed rocks because they are more susceptible to the effects of erosion.

Driving Uphill

Once you decide you can safely drive up the hill, you need to take some special steps.

- Use a low gear and get a firm grip on the steering wheel.
- Get a smooth start up the hill and try to maintain your speed. Don't use more power than you need, because you don't want your wheels to start spinning or sliding.
- Try to drive straight up the hill if at all possible. If the path twists and turns, you might want to find another route.

⚠ CAUTION:

Turning or driving across steep hills can be dangerous. You could lose traction, slide sideways, and possibly roll over. You could be seriously injured or killed. When driving up hills, always try to go straight up.

- Ease up on your speed as you approach the top of the hill.
- Attach a flag to the vehicle to make you more visible to approaching traffic on trails or hills.
- Sound the horn as you approach the top of the hill to let opposing traffic know you're there.
- Use your headlamps even during the day. They make you more visible to oncoming traffic.

⚠ CAUTION:

Driving to the top (crest) of a hill at full speed can cause an accident. There could be a drop-off, embankment, cliff, or even another vehicle. You could be seriously injured or killed. As you near the top of a hill, slow down and stay alert.

Q: What should I do if my vehicle stalls, or is about to stall, and I can't make it up the hill?

A: If this happens, there are some things you should do, and there are some things you must not do. First here's what you *should* do:

- Push the brake pedal to stop the vehicle and keep it from rolling backwards. Also, apply the parking brake.
- If your engine is still running, shift the transmission to REVERSE (R), release the parking brake, and slowly back down the hill in REVERSE (R)
- If your engine has stopped running, you'll need to restart it. With the brake pedal pressed and the parking brake still applied, shift the transmission to PARK (P) (or, shift to neutral if your vehicle has a manual transmission) and restart the engine. Then, shift to REVERSE (R), release the parking brake, and slowly back down the fill as straight as possible in REVERSE (R).
- As you are backing down the hill, put your left hand on the steering wheel at the 12 o'clock position. This way, you'll be able to tell if your wheels are straight and maneuver as you back down. It's best that you back down the hill with your wheels straight rather than in the left or right direction. Turning the wheel too far to the left or right will increase the possibility of a rollover.

Here are some things you *must not* do if you stall, or are about to stall, when going up a hill.

- Never attempt to prevent a stall by shifting into NEUTRAL (N) (or pressing the clutch, if you have a manual transmission) to "rev-up" the engine and regain forward momentum. This won't work. Your vehicle will roll backwards very quickly and you could go out of control.

  Instead, apply the regular brake to stop the vehicle. Then apply the parking brake. Shift to REVERSE (R), release the parking brake, and slowly back straight down.
- Never attempt to turn around if you are about to stall when going up a hill. If the hill is steep enough to stall your vehicle, it's steep enough to cause you to roll over if you turn around. If you can't make it up the hill, you must back straight down the hill.

Q: Suppose, after stalling, I try to back down the hill and decide I just can't do it. What should I do?

A: Set the parking brake, put your transmission in PARK (P), or the manual transmission in FIRST (1), and turn off the engine. Leave the vehicle and go get some help. Exit on the uphill side and stay clear of the path the vehicle would take if it rolled downhill. Do not shift the transfer case to NEUTRAL when you leave the vehicle. Leave it in some gear.

⚠ CAUTION:

Shifting the transfer case to NEUTRAL can cause your vehicle to roll even if the transmission is in PARK (P) (or, if you have the manual transmission, even if you are in gear). This is because the NEUTRAL position on the transfer case overrides the transmission. You or someone else could be injured. If you are going to leave your vehicle, set the parking brake and shift the transmission to PARK (P) (or, put your manual transmission in FIRST (1)). But do not shift the transfer case to NEUTRAL. Leave the transfer case in the 2H, 4H or 4L position.

Driving Downhill

When off-roading takes you downhill, you'll want to consider a number of things:

- How steep is the downhill? Will I be able to maintain vehicle control?
- What's the surface like? Smooth? Rough? Slippery? Hard-packed dirt? Gravel?
- Are there any hidden surface obstacles? Ruts? Logs? Boulders?
- What's at the bottom of the hill? Is there a hidden creek bank or even a river bottom with large rocks?

If you decide you can go down a hill safely, then try to keep your vehicle headed straight down, and use a low gear. This way, engine drag can help your brakes and they won't have to do all the work. Descend slowly, keeping your vehicle under control at all times.

⚠ CAUTION:

Heavy braking when going down a hill can cause your brakes to overheat and fade. This could cause loss of control and a serious accident. Apply the brakes lightly when descending a hill and use a low gear to keep vehicle speed under control.

Q: Are there some things I should not do when driving down a hill?

A: Yes! These are important because if you ignore them you could lose control and have a serious accident.

- When driving downhill, avoid turns that take you across the incline of the hill. A hill that's not too steep to drive down may be too steep to drive across. You could roll over if you don't drive straight down.
- Never go downhill with the transmission in NEUTRAL (N), or with the clutch pedal pressed down in a manual shift. This is called "free-wheeling." Your brakes will have to do all the work and could overheat and fade.
- Unless you have anti-lock: Avoid braking so hard that you lock the wheels when going downhill. If your wheels are locked, you can't steer your vehicle. If your wheels lock up during downhill braking, you may feel the vehicle starting to slide sideways. To regain your direction, just ease off the brakes and steer to keep the front of the vehicle pointing straight downhill.

Q: Am I likely to stall when going downhill?

A: It's much more likely to happen going uphill. But if it happens going downhill, here's what to do.

- Stop your vehicle by applying the regular brakes. Apply the parking brake.
- Shift to PARK (P) (or to neutral with the manual transmission) and, while still braking, restart the engine.
- Shift back to a low gear, release the parking brake, and drive straight down.
- If the engine won't start, get out and get help.

Driving Across an Incline

Sooner or later, an off-road trail will probably go across the incline of a hill. If this happens, you have to decide whether to try to drive across the incline. Here are some things to consider:

- A hill that can be driven straight up or down may be too steep to drive across. When you go straight up or down a hill, the length of the wheel base (the distance from the front wheels to the rear wheels) reduces the likelihood the vehicle will tumble end over end. But when you drive across an incline, the much more narrow track width (the distance between the left and right wheels) may not prevent the vehicle from tilting and rolling over. Also, driving across an incline puts more weight on the downhill wheels. This could cause a downhill slide or a rollover.
- Surface conditions can be a problem when you drive across a hill. Loose gravel, muddy spots, or even wet grass can cause your tires to slip sideways, downhill. If the vehicle slips sideways, it can hit something that will trip it (a rock, a rut, etc.) and roll over.
- Hidden obstacles can make the steepness of the incline even worse. If you drive across a rock with the uphill wheels, or if the downhill wheels drop into a rut or depression, your vehicle can tilt even more.

For reasons like these, you need to decide carefully whether to try to drive across an incline. Just because the trail goes across the incline doesn't mean you have to drive it. The last vehicle to try it might have rolled over.

⚠ CAUTION:

Driving across an incline that is too steep will make your vehicle roll over. You could be seriously injured or killed. If you have any doubt about the steepness of the incline, do not drive across it. Find another route instead.

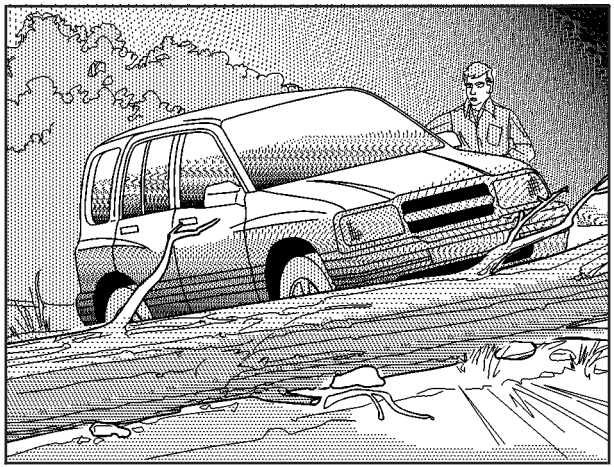
Q: What if I'm driving across an incline that's not too steep, but I hit some loose gravel and start to slide downhill. What should I do?

A: If you feel your vehicle starting to slide sideways, turn downhill. This should help straighten out the vehicle and prevent the side slipping. However, a much better way to prevent this is to get out and "walk the course" so you know what the surface is like before you drive it.

Stalling on an Incline

If your vehicle stalls when you're crossing an incline, be sure you (and your passengers) get out on the uphill side, even if the door there is harder to open. If you get out on the downhill side and the vehicle starts to roll over, you'll be right in its path.

If you have to walk down the slope, stay out of the path of the vehicle if it does roll over.



⚠ CAUTION:

Getting out on the downhill (low) side of a vehicle stopped across an incline is dangerous. If the vehicle rolls over, you could be crushed or killed. Always get out on the uphill (high) side of the vehicle and stay well clear of the rollover path.

Driving in Mud, Sand, Snow or Ice

When you drive in mud, snow or sand, your wheels won't get good traction. You can't accelerate as quickly, turning is more difficult, and you'll need longer braking distances.

It's best to use a low gear when you're in mud — the deeper the mud, the lower the gear. In really deep mud, the idea is to keep your vehicle moving so you don't get stuck.

When you drive on sand, you'll sense a change in wheel traction. But it will depend upon how loosely packed the sand is. On loosely packed sand (as on beaches or sand dunes) your tires will tend to sink into the sand. This has an effect on steering, accelerating and braking. Drive at a reduced speed and avoid sharp turns or abrupt maneuvers.

Hard packed snow and ice offer the worst tire traction. On these surfaces, it's very easy to lose control. On wet ice, for example, the traction is so poor that you will have difficulty accelerating. And if you do get moving, poor steering and difficult braking can cause you to slide out of control.

⚠ CAUTION:

Driving on frozen lakes, ponds or rivers can be dangerous. Underwater springs, currents under the ice, or sudden thaws can weaken the ice. Your vehicle could fall through the ice and you and your passengers could drown. Drive your vehicle on safe surfaces only.

Driving in Water

Heavy rain can mean flash flooding, and flood waters demand extreme caution.

Find out how deep the water is before you drive through it. If it's deep enough to cover your wheel hubs, axles or exhaust pipe, don't try it — you probably won't get through. Also, water that deep can damage your axle and other vehicle parts.

If the water isn't too deep, drive slowly through it. At faster speeds, water splashes on your ignition system and your vehicle can stall. Stalling can also occur if you get your tailpipe under water. And, as long as your tailpipe is under water, you'll never be able to start your engine. When you go through water, remember that when your brakes get wet, it may take you longer to stop.

⚠ CAUTION:

Driving through rushing water can be dangerous. Deep water can sweep your vehicle downstream and you and your passengers could drown. If it is only shallow water, it can still wash away the ground from under your tires, and you could lose traction and roll the vehicle over. Do not drive through rushing water.

See *Driving in Rain and on Wet Roads on page 4-32* for more information on driving through water.

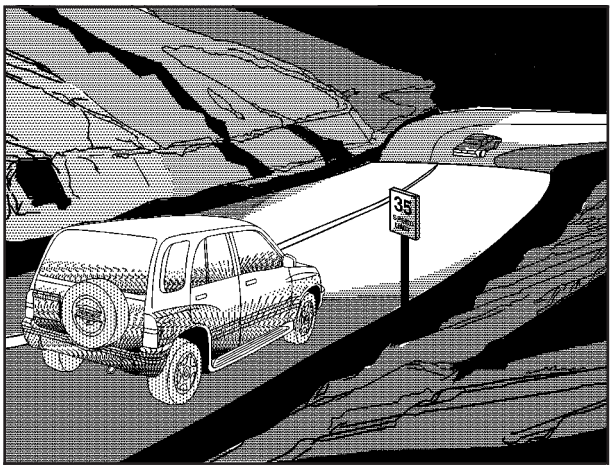
After Off-Road Driving

Remove any brush or debris that has collected on the underbody, chassis or under the hood. These accumulations can be a fire hazard.

After operation in mud or sand, have the brake linings cleaned and checked. These substances can cause glazing and uneven braking. Check the body structure, steering, suspension, wheels, tires and exhaust system for damage. Also, check the fuel lines and cooling system for any leakage.

Your vehicle will require more frequent service due to off-road use. Refer to the Maintenance Schedule for additional information.

Driving at Night



Night driving is more dangerous than day driving. One reason is that some drivers are likely to be impaired — by alcohol or drugs, with night vision problems, or by fatigue.

Here are some tips on night driving.

- Drive defensively.
- Don't drink and drive.
- Adjust your inside rearview mirror to reduce the glare from headlamps behind you.
- Since you can't see as well, you may need to slow down and keep more space between you and other vehicles.
- Slow down, especially on higher speed roads. Your headlamps can light up only so much road ahead.
- In remote areas, watch for animals.
- If you're tired, pull off the road in a safe place and rest.

No one can see as well at night as in the daytime. But as we get older these differences increase. A 50-year-old driver may require at least twice as much light to see the same thing at night as a 20-year-old.

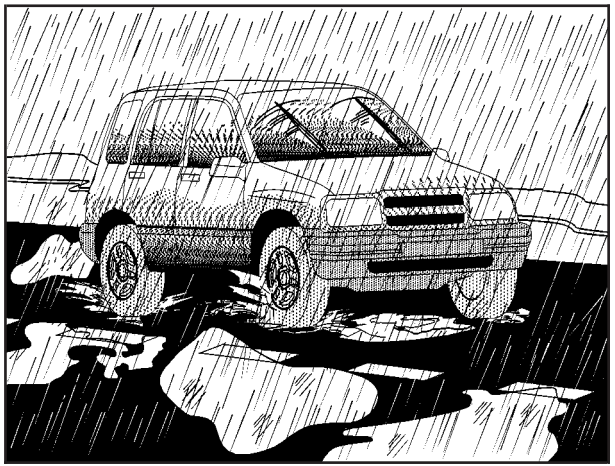
What you do in the daytime can also affect your night vision. For example, if you spend the day in bright sunshine you are wise to wear sunglasses. Your eyes will have less trouble adjusting to night. But if you're driving, don't wear sunglasses at night. They may cut down on glare from headlamps, but they also make a lot of things invisible.

You can be temporarily blinded by approaching headlamps. It can take a second or two, or even several seconds, for your eyes to readjust to the dark. When you are faced with severe glare (as from a driver who doesn't lower the high beams, or a vehicle with misaimed headlamps), slow down a little. Avoid staring directly into the approaching headlamps.

Keep your windshield and all the glass on your vehicle clean — inside and out. Glare at night is made much worse by dirt on the glass. Even the inside of the glass can build up a film caused by dust. Dirty glass makes lights dazzle and flash more than clean glass would, making the pupils of your eyes contract repeatedly.

Remember that your headlamps light up far less of a roadway when you are in a turn or curve. Keep your eyes moving; that way, it's easier to pick out dimly lighted objects. Just as your headlamps should be checked regularly for proper aim, so should your eyes be examined regularly. Some drivers suffer from night blindness — the inability to see in dim light — and aren't even aware of it.

Driving in Rain and on Wet Roads

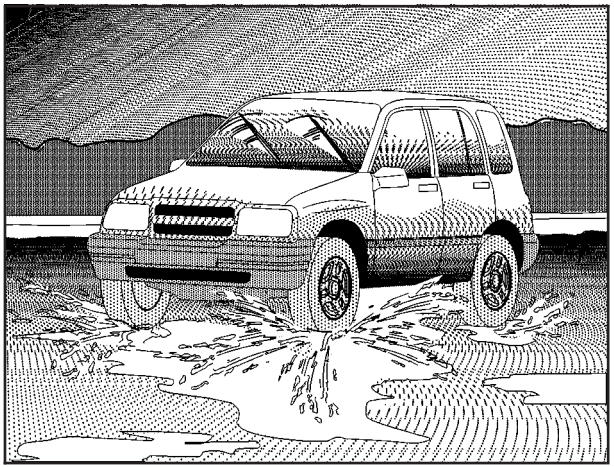


Rain and wet roads can mean driving trouble. On a wet road, you can't stop, accelerate or turn as well because your tire-to-road traction isn't as good as on dry roads.

And, if your tires don't have much tread left, you'll get even less traction. It's always wise to go slower and be cautious if rain starts to fall while you are driving. The surface may get wet suddenly when your reflexes are tuned for driving on dry pavement.

The heavier the rain, the harder it is to see. Even if your windshield wiper blades are in good shape, a heavy rain can make it harder to see road signs and traffic signals, pavement markings, the edge of the road and even people walking.

It's wise to keep your wiping equipment in good shape and keep your windshield washer tank filled with washer fluid. Replace your windshield wiper inserts when they show signs of streaking or missing areas on the windshield, or when strips of rubber start to separate from the inserts.



Driving too fast through large water puddles or even going through some car washes can cause problems, too. The water may affect your brakes. Try to avoid puddles. But if you can't, try to slow down before you hit them.

⚠ CAUTION:

Wet brakes can cause accidents. They will not work as well in a quick stop and may cause pulling to one side. You could lose control of the vehicle.

After driving through a large puddle of water or a car wash, apply your brake pedal lightly until your brakes work normally.

Hydroplaning

Hydroplaning is dangerous. So much water can build up under your tires that they can actually ride on the water. This can happen if the road is wet enough and you're going fast enough. When your vehicle is hydroplaning, it has little or no contact with the road.

Hydroplaning doesn't happen often. But it can if your tires do not have much tread or if the pressure in one or more is low. It can happen if a lot of water is standing on the road. If you can see reflections from trees, telephone poles or other vehicles, and raindrops "dimple" the water's surface, there could be hydroplaning.

Hydroplaning usually happens at higher speeds. There just isn't a hard and fast rule about hydroplaning. The best advice is to slow down when it is raining.

Driving Through Deep Standing Water

Notice: **If you drive too quickly through deep puddles or standing water, water can come in through your engine's air intake and badly damage your engine. Never drive through water that is slightly lower than the underbody of your vehicle. If you can not avoid deep puddles or standing water, drive through them very slowly.**

Driving Through Flowing Water

⚠ CAUTION:

Flowing or rushing water creates strong forces. If you try to drive through flowing water, as you might at a low water crossing, your vehicle can be carried away. As little as six inches of flowing water can carry away a smaller vehicle. If this happens, you and other vehicle occupants could drown. Do not ignore police warning signs, and otherwise be very cautious about trying to drive through flowing water.

Some Other Rainy Weather Tips

- Besides slowing down, allow some extra following distance. And be especially careful when you pass another vehicle. Allow yourself more clear room ahead, and be prepared to have your view restricted by road spray.
- Have good tires with proper tread depth. See *Tires on page 5-59*.

City Driving

One of the biggest problems with city streets is the amount of traffic on them. You'll want to watch out for what the other drivers are doing and pay attention to traffic signals.

Here are ways to increase your safety in city driving:

- Know the best way to get to where you are going. Get a city map and plan your trip into an unknown part of the city just as you would for a cross-country trip.
- Try to use the freeways that rim and crisscross most large cities. You'll save time and energy. See the next part, "Freeway Driving."
- Treat a green light as a warning signal. A traffic light is there because the corner is busy enough to need it. When a light turns green, and just before you start to move, check both ways for vehicles that have not cleared the intersection or may be running the red light.

Freeway Driving

Mile for mile, freeways (also called thruways, parkways, expressways, turnpikes or superhighways) are the safest of all roads. But they have their own special rules.

The most important advice on freeway driving is: Keep up with traffic and keep to the right. Drive at the same speed most of the other drivers are driving. Too-fast or too-slow driving breaks a smooth traffic flow. Treat the left lane on a freeway as a passing lane.

At the entrance, there is usually a ramp that leads to the freeway. If you have a clear view of the freeway as you drive along the entrance ramp, you should begin to check traffic. Try to determine where you expect to blend with the flow. Try to merge into the gap at close to the prevailing speed. Switch on your turn signal, check your mirrors and glance over your shoulder as often as necessary. Try to blend smoothly with the traffic flow.

Once you are on the freeway, adjust your speed to the posted limit or to the prevailing rate if it's slower. Stay in the right lane unless you want to pass.

Before changing lanes, check your mirrors. Then use your turn signal.

Just before you leave the lane, glance quickly over your shoulder to make sure there isn't another vehicle in your "blind" spot.

Once you are moving on the freeway, make certain you allow a reasonable following distance. Expect to move slightly slower at night.

When you want to leave the freeway, move to the proper lane well in advance. If you miss your exit, do not, under any circumstances, stop and back up. Drive on to the next exit.

The exit ramp can be curved, sometimes quite sharply. The exit speed is usually posted.

Reduce your speed according to your speedometer, not to your sense of motion. After driving for any distance at higher speeds, you may tend to think you are going slower than you actually are.

Before Leaving on a Long Trip

Make sure you're ready. Try to be well rested. If you must start when you're not fresh — such as after a day's work — don't plan to make too many miles that first part of the journey. Wear comfortable clothing and shoes you can easily drive in.

Is your vehicle ready for a long trip? If you keep it serviced and maintained, it's ready to go. If it needs service, have it done before starting out. Of course, you'll find experienced and able service experts in GM dealerships all across North America. They'll be ready and willing to help if you need it.

Here are some things you can check before a trip:

- *Windshield Washer Fluid:* Is the reservoir full? Are all windows clean inside and outside?
- *Wiper Blades:* Are they in good shape?
- *Fuel, Engine Oil, Other Fluids:* Have you checked all levels?
- *Lamps:* Are they all working? Are the lenses clean?
- *Tires:* They are vitally important to a safe, trouble-free trip. Is the tread good enough for long-distance driving? Are the tires all inflated to the recommended pressure?
- *Weather Forecasts:* What's the weather outlook along your route? Should you delay your trip a short time to avoid a major storm system?
- *Maps:* Do you have up-to-date maps?

Highway Hypnosis

Is there actually such a condition as “highway hypnosis”? Or is it just plain falling asleep at the wheel? Call it highway hypnosis, lack of awareness, or whatever.

There is something about an easy stretch of road with the same scenery, along with the hum of the tires on the road, the drone of the engine, and the rush of the wind against the vehicle that can make you sleepy. Don’t let it happen to you! If it does, your vehicle can leave the road in *less than a second,* and you could crash and be injured.

What can you do about highway hypnosis? First, be aware that it can happen.

Then here are some tips:

- Make sure your vehicle is well ventilated, with a comfortably cool interior.
- Keep your eyes moving. Scan the road ahead and to the sides. Check your mirrors and your instruments frequently.
- If you get sleepy, pull off the road into a rest, service or parking area and take a nap, get some exercise, or both. For safety, treat drowsiness on the highway as an emergency.

Hill and Mountain Roads

Driving on steep hills or mountains is different from driving in flat or rolling terrain.

If you drive regularly in steep country, or if you're planning to visit there, here are some tips that can make your trips safer and more enjoyable. See *Off-Road Driving with Your Four-Wheel-Drive Vehicle on page 4-16* for information about driving off-road.

- Keep your vehicle in good shape. Check all fluid levels and also the brakes, tires, cooling system and transmission. These parts can work hard on mountain roads.
- Know how to go down hills. The most important thing to know is this: let your engine do some of the slowing down. Shift to a lower gear when you go down a steep or long hill.

⚠ CAUTION:

If you do not shift down, your brakes could get so hot that they would not work well. You would then have poor braking or even none going down a hill. You could crash. Shift down to let your engine assist your brakes on a steep downhill slope.

⚠ CAUTION:

Coasting downhill in NEUTRAL (N) or with the ignition off is dangerous. Your brakes will have to do all the work of slowing down. They could get so hot that they would not work well. You would then have poor braking or even none going down a hill. You could crash. Always have your engine running and your vehicle in gear when you go downhill.

- Know how to go uphill. You may want to shift down to a lower gear. The lower gears help cool your engine and transmission, and you can climb the hill better.
- Stay in your own lane when driving on two-lane roads in hills or mountains. Don't swing wide or cut across the center of the road. Drive at speeds that let you stay in your own lane.
- As you go over the top of a hill, be alert. There could be something in your lane, like a stalled car or an accident.
- You may see highway signs on mountains that warn of special problems. Examples are long grades, passing or no-passing zones, a falling rocks area or winding roads. Be alert to these and take appropriate action.

Winter Driving

Here are some tips for winter driving:

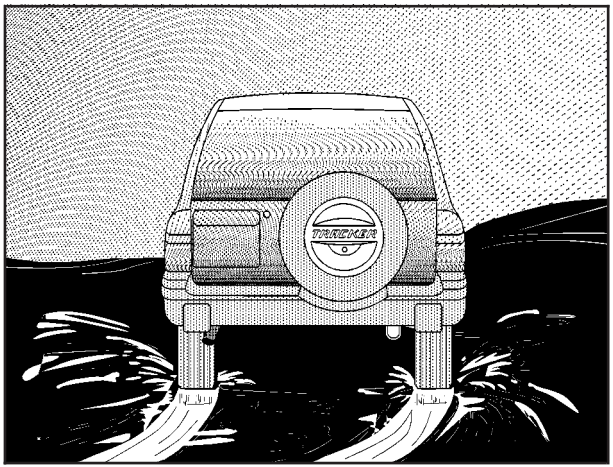
- Have your vehicle in good shape for winter.
- You may want to put winter emergency supplies in your vehicle.

Include an ice scraper, a small brush or broom, a supply of windshield washer fluid, a rag, some winter outer clothing, a small shovel, a flashlight, a red cloth and a couple of reflective warning triangles. And, if you will be driving under severe conditions, include a small bag of sand, a piece of old carpet or a couple of burlap bags to help provide traction. Be sure you properly secure these items in your vehicle.

Driving On Snow or Ice

Most of the time, those places where your tires meet the road probably have good traction.

However, if there is snow or ice between your tires and the road, you can have a very slippery situation. You'll have a lot less traction or "grip" and will need to be very careful.



What's the worst time for this? "Wet ice." Very cold snow or ice can be slick and hard to drive on. But wet ice can be even more trouble because it may offer the least traction of all. You can get wet ice when it's about freezing (32°F; 0°C) and freezing rain begins to fall. Try to avoid driving on wet ice until salt and sand crews can get there.

Whatever the condition – smooth ice, packed, blowing or loose snow – drive with caution.

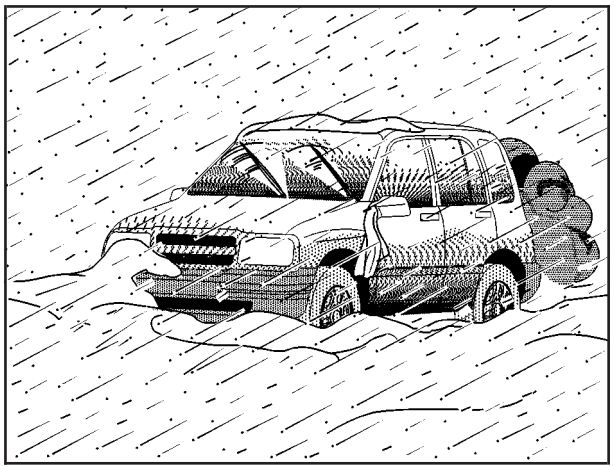
Accelerate gently. Try not to break the fragile traction. If you accelerate too fast, the drive wheels will spin and polish the surface under the tires even more.

Unless you have the anti-lock braking system, you'll want to brake very gently, too. If you do have anti-lock, see *Braking on page 4-7*. This system improves your vehicle's stability when you make a hard stop on a slippery road. Whether you have the anti-lock braking system or not, you'll want to begin stopping sooner than you would on dry pavement. Without anti-lock brakes, if you feel your vehicle begin to slide, let up on the brakes a little. Push the brake pedal down steadily to get the most traction you can.

Remember,unless you have anti-lock, if you brake so hard that your wheels stop rolling, you'll just slide. Brake so your wheels always keep rolling and you can still steer.

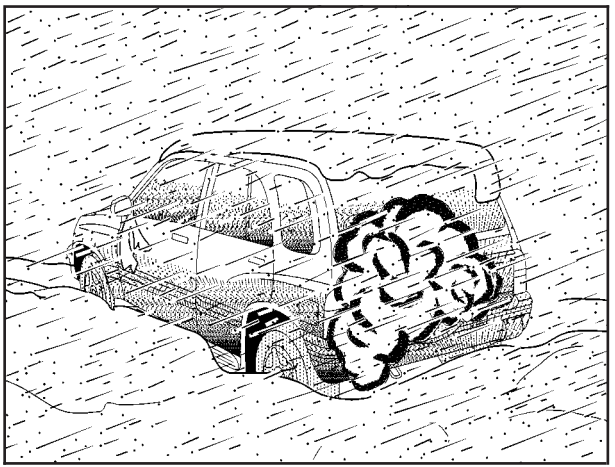
- Whatever your braking system, allow greater following distance on any slippery road.
- Watch for slippery spots. The road might be fine until you hit a spot that's covered with ice. On an otherwise clear road, ice patches may appear in shaded areas where the sun can't reach: around clumps of trees, behind buildings or under bridges. Sometimes the surface of a curve or an overpass may remain icy when the surrounding roads are clear. If you see a patch of ice ahead of you, brake before you are on it. Try not to brake while you're actually on the ice, and avoid sudden steering maneuvers.

If You're Caught in a Blizzard



If you are stopped by heavy snow, you could be in a serious situation. You should probably stay with your vehicle unless you know for sure that you are near help and you can hike through the snow. Here are some things to do to summon help and keep yourself and your passengers safe:

- Turn on your hazard flashers.
- Tie a red cloth to your vehicle to alert police that you've been stopped by the snow.
- Put on extra clothing or wrap a blanket around you. If you have no blankets or extra clothing, make body insulators from newspapers, burlap bags, rags, floor mats – anything you can wrap around yourself or tuck under your clothing to keep warm.



You can run the engine to keep warm, but be careful.

⚠ CAUTION:

Snow can trap exhaust gases under your vehicle. This can cause deadly CO (carbon monoxide) gas to get inside. CO could overcome you and kill you. You can not see it or smell it, so you might not know it is in your vehicle. Clear away snow from around the base of your vehicle, especially any that is blocking your exhaust pipe. And check around again from time to time to be sure snow does not collect there.

Open a window just a little on the side of the vehicle that is away from the wind. This will help keep CO out.

Run your engine only as long as you must. This saves fuel. When you run the engine, make it go a little faster than just idle. That is, push the accelerator slightly. This uses less fuel for the heat that you get and it keeps the battery charged. You will need a well-charged battery to restart the vehicle, and possibly for signaling later on with your headlamps. Let the heater run for a while.

Then, shut the engine off and close the window almost all the way to preserve the heat. Start the engine again and repeat this only when you feel really uncomfortable from the cold. But do it as little as possible. Preserve the fuel as long as you can. To help keep warm, you can get out of the vehicle and do some fairly vigorous exercises every half hour or so until help comes.

If You Are Stuck: In Sand, Mud, Ice or Snow

In order to free your vehicle when it is stuck, you will need to spin the wheels, but you don't want to spin your wheels too fast. The method known as "rocking" can help you get out when you're stuck, but you must use caution.

⚠ CAUTION:

If you let your tires spin at high speed, they can explode, and you or others could be injured. And, the transmission or other parts of the vehicle can overheat. That could cause an engine compartment fire or other damage.

CAUTION: (Continued)

CAUTION: (Continued)

When you are stuck, spin the wheels as little as possible. Do not spin the wheels above 35 mph (55 km/h) as shown on the speedometer.

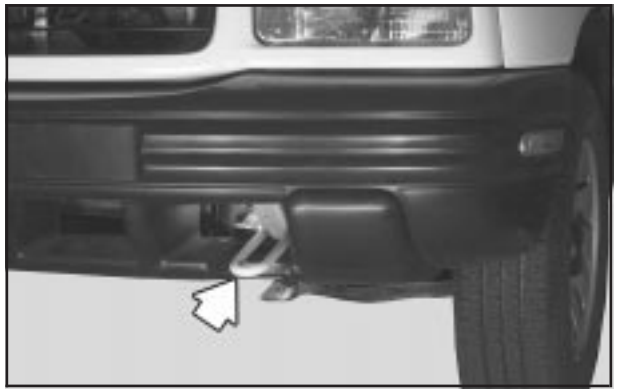
Notice: **Spinning your wheels can destroy parts of your vehicle as well as the tires. If you spin the wheels too fast while shifting your transmission back and forth, you can destroy your transmission.**

For information about using tire chains on your vehicle, see *Tire Chains on page 5-66*.

Rocking Your Vehicle To Get It Out

First, turn your steering wheel left and right. That will clear the area around your front wheels. If you have the four-speed automatic, see “Power Mode Selector Switch” under *Automatic Transmission Operation on page 2-19* for information on traction. If you have a four-wheel-drive vehicle, shift into 4HI. Then shift back and forth between REVERSE (R) and a forward gear (or with a manual transmission, between FIRST (1) or SECOND (2) and REVERSE (R)), spinning the wheels as little as possible. Release the accelerator pedal while you shift, and press lightly on the accelerator pedal when the transmission is in gear. By slowly spinning your wheels in the forward and reverse directions, you will cause a rocking motion that may free your vehicle. If that doesn’t get you out after a few tries, you may need to be towed out. Or, you can use your recovery hooks. If you do need to be towed out, see *Towing Your Vehicle on page 4-47*.

Using the Recovery Hooks



Your vehicle is equipped with recovery hooks. The hooks are provided at the front and rear of your vehicle. You may need to use them if you’re stuck off-road and need to be pulled to some place where you can continue driving.

⚠ CAUTION:

These hooks, when used, are under a lot of force. Always pull the vehicle straight out. Never pull on the hooks at a sideways angle. The hooks could break off and you or others could be injured from the chain or cable snapping back.

Notice: **Never use recovery hooks to tow the vehicle. Your vehicle could be damaged and it would not be covered by warranty.**

Towing

Towing Your Vehicle

Consult your dealer or a professional towing service if you need to have your disabled vehicle towed. See *Roadside Assistance Program on page 7-6*.

If you want to tow your vehicle behind another vehicle for recreational purposes (such as behind a motorhome), see “Recreational Vehicle Towing” following.

Recreational Vehicle Towing

Recreational vehicle towing means towing your vehicle behind another vehicle – such as behind a motorhome. The two most common types of recreational vehicle towing are known as “dinghy towing” (towing your vehicle with all four wheels on the ground) and “dolly towing” (towing your vehicle with two wheels on the ground and two wheels up on a device known as a “dolly”).

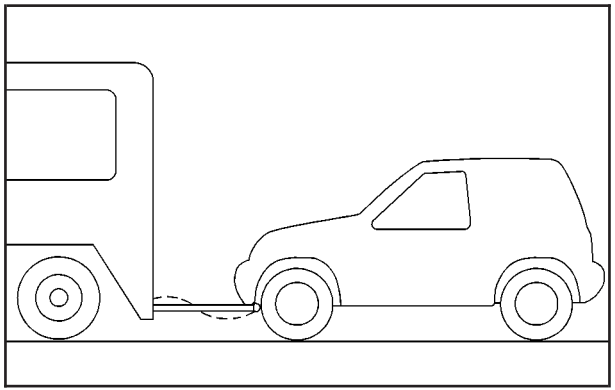
With the proper preparation and equipment, many vehicles can be towed in these ways. See “Dinghy Towing” and “Dolly Towing,” following.

Here are some important things to consider before you do recreational vehicle towing:

- What’s the towing capacity of the towing vehicle? Be sure you read the tow vehicle manufacturer’s recommendations.
- How far will you tow? Some vehicles have restrictions on how far and how long they can tow.
- Do you have the proper towing equipment? See your dealer or trailering professional for additional advice and equipment recommendations.
- Is your vehicle ready to be towed? Just as you would prepare your vehicle for a long trip, you’ll want to make sure your vehicle is prepared to be towed. See *Before Leaving on a Long Trip on page 4-37*.

Dinghy Towing

To tow your vehicle from the front (four-wheel-drive only), do the following:



Notice: **If you tow a two-wheel-drive vehicle with all four wheels on the ground, the transmission could be damaged. The repairs would not be covered by your warranty. Do not tow a two-wheel-drive vehicle with all four wheels on the ground.**

Follow these steps:

1. Set the parking brake.
2. Shift your automatic transmission into PARK (P), or your manual transmission to SECOND (2).
3. With the ignition key in the ON position, move the transfer case to NEUTRAL and make sure the 4WD light on the instrument panel cluster is off. See *Four-Wheel Drive on page 5-53*.
4. Turn the ignition key to ACC.
5. Release the parking brake.

Notice: **If you do not put the transfer case in NEUTRAL before towing a four-wheel-drive vehicle from the front, the vehicle could be damaged. The repairs would not be covered by your warranty. Always put the transfer case in NEUTRAL before towing your vehicle.**

Stop towing every 200 miles (300 km) and start the engine. Leave the transfer case shift lever in NEUTRAL. Shift your automatic transmission to DRIVE (D); leave a manual transmission in SECOND (2) with the clutch engaged. Run the engine at 2,000 rpm for one minute to circulate oil in the transfer case. Turn the ignition key to ACC. Now, you can continue towing your vehicle.

Notice: **Locking the steering column when towing your vehicle may damage the steering column. Always unlock the steering column before towing.**

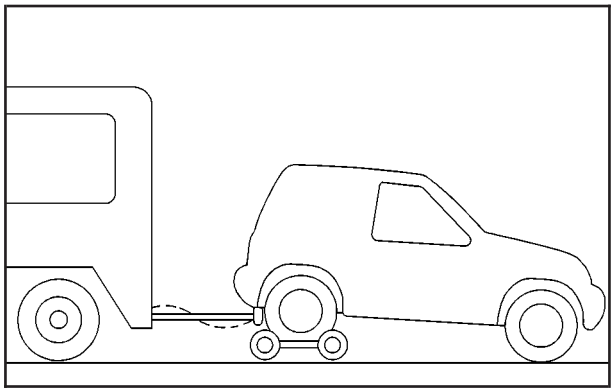
Notice: **If you exceed 55 mph (90 km/h) while towing your vehicle, it could be damaged. Never exceed 55 mph (90 km/h) while towing your vehicle.**

⚠ CAUTION:

Shifting a four-wheel-drive vehicle's transfer case into NEUTRAL can cause your vehicle to roll even if the transmission is in Park (P) for an automatic transmission, or if your vehicle is in gear, for a manual transmission. You or others could be injured. Make sure the parking brake is firmly set before you shift the transfer case to NEUTRAL.

Dolly Towing

To tow your vehicle from the rear, do the following:



The best way to tow your vehicle is from the rear. Follow these steps:

1. Put the rear wheels on a dolly.

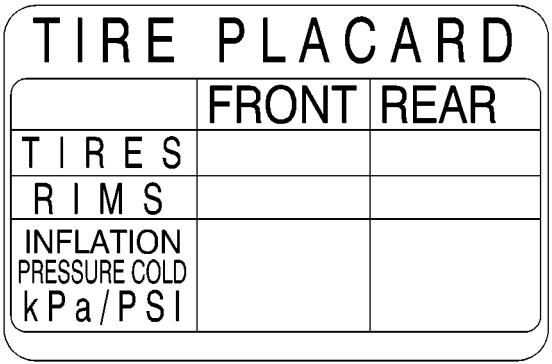
Notice: **If you tow a two-wheel-drive vehicle with the rear wheels on the ground, the transmission could be damaged. The repairs would not be covered by your warranty. Never tow your vehicle with the rear wheels on the ground.**

2. If your vehicle is a four-wheel-drive vehicle, turn the ignition key to ON, move the transfer case lever into NEUTRAL and make sure the 4WD light on the instrument panel cluster is turned off. See *Four-Wheel Drive on page 5-53*.
3. Turn the ignition key to ACC.
4. Make sure the front wheels are facing straight forward and secure the steering wheel with a steering wheel clamping device designed for towing.

Notice: **If you exceed 55 mph (90 km/h) while towing your vehicle, it could be damaged. Never exceed 55 mph (90 km/h) while towing your vehicle.**

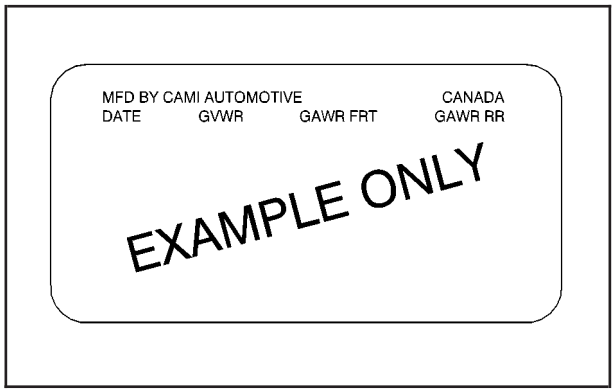
⚠ CAUTION:

Shifting a four-wheel-drive vehicle's transfer case into NEUTRAL can cause your vehicle to roll even if the transmission is in Park (P) for an automatic transmission, or if your vehicle is in gear, for a manual transmission. You or others could be injured. Make sure the parking brake is firmly set before you shift the transfer case to NEUTRAL.



TIRE PLACARD		
	FRONT	REAR
TIRES		
RIMS		
INFLATION PRESSURE COLD kPa/PSI		

Two labels on your vehicle show how much weight it may properly carry. The tire-loading information label found on the driver's door lock pillar tells you the proper size and recommended inflation pressures for the tires on your vehicle.



The other label is the certification label, also found on the driver's door lock pillar. It tells you the gross weight capacity of your vehicle, called the Gross Vehicle Weight Rating (GVWR). The GVWR includes the weight of the vehicle, all occupants, fuel and cargo. Never exceed the GVWR for your vehicle, or the Gross Axle Weight Rating (GAWR) for either the front or rear axle.

And, if you do have a heavy load, you should spread it out. Don't carry more than 400 lbs. (181 kg) in your rear area when four people are in your two-wheel-drive vehicle. If you have a four-wheel-drive vehicle, don't carry more than 200 lbs. (91 kg) in your rear area when four people are in your vehicle.

⚠ CAUTION:

Do not load your vehicle any heavier than the GVWR, or either the maximum front or rear GAWR. If you do, parts on your vehicle can break, and it can change the way your vehicle handles. These could cause you to lose control and crash. Also, overloading can shorten the life of your vehicle.

Notice: **Loading objects that weigh over 400 lbs (181 kg) onto the sliding rear convenience tray may cause damage. Repairs would not be covered by your warranty. Do not load heavy objects on the sliding rear convenience tray.**

If you put things inside your vehicle — like suitcases, tools, packages or anything else — they will go as fast as the vehicle goes. If you have to stop or turn quickly, or if there is a crash, they'll keep going.

⚠ CAUTION:

Things you put inside your vehicle can strike and injure people in a sudden stop or turn, or in a crash.

- **Put things in the cargo area of your vehicle. Try to spread the weight evenly.**
- **Never stack heavier things, like suitcases, inside the vehicle so that some of them are above the tops of the seats.**
- **Don't leave an unsecured child restraint in your vehicle.**
- **When you carry something inside the vehicle, secure it whenever you can.**
- **Don't leave a seat folded down unless you need to.**

There's also important loading information for off-road driving in this manual. See *Loading Your Vehicle on page 4-51*.

Towing a Trailer

⚠ CAUTION:

If you don't use the correct equipment and drive properly, you can lose control when you pull a trailer. For example, if the trailer is too heavy, the brakes may not work well -- or even at all. You and your passengers could be seriously injured. Pull a trailer only if you have followed all the steps in this section. Ask your dealer for advice and information about towing a trailer with your vehicle.

Notice: **Pulling a trailer improperly can damage your vehicle and result in costly repairs that would not be covered by your warranty. Always follow the instructions in this section and check with your dealer for more information about towing a trailer with your vehicle.**

Your vehicle can tow a trailer. To identify what the vehicle trailering capacity is for your vehicle, you should read the information in "Weight of the Trailer" that appears later in this section. But trailering is different than just driving your vehicle by itself. Trailering means changes in handling, durability and fuel economy. Successful, safe trailering takes correct equipment, and it has to be used properly.

That's the reason for this section. In it are many time-tested, important trailering tips and safety rules. Many of these are important for your safety and that of your passengers. So please read this section carefully before you pull a trailer.

Load-pulling components such as the engine, transmission, wheel assemblies and tires are forced to work harder against the drag of the added weight. The engine is required to operate at relatively higher speeds and under greater loads, generating extra heat. What's more, the trailer adds considerably to wind resistance, increasing the pulling requirements.

If You Do Decide To Pull A Trailer

If you do, here are some important points:

- There are many different laws, including speed limit restrictions, having to do with trailering. Make sure your rig will be legal, not only where you live but also where you'll be driving. A good source for this information can be state or provincial police.
- Consider using a sway control. You can ask a hitch dealer about sway controls.
- Don't tow a trailer at all during the first 600 miles (1000 km) your new vehicle is driven. Your engine, axle or other parts could be damaged.
- Never exceed posted towing speed limits or go over 45 mph (72 km/h), whichever is lower and don't make starts at full throttle. This helps your engine and other parts of your vehicle wear in at the heavier loads.
- If you have an automatic transmission, you can use THIRD (3) (or, as you need to, a lower gear) when towing a trailer. Operating your vehicle in THIRD (3) when towing a trailer will minimize heat buildup and extend the life of your transmission. If you have a manual transmission and you are towing a trailer, it's better not to use the highest gear.

Three important considerations have to do with weight:

- the weight of the trailer,
- the weight of the trailer tongue
- and the weight on your vehicle's tires.

Weight of the Trailer

How heavy can a trailer safely be?

It should never weigh more than 1,000 lbs. (450 kg) for two-door models and 1,500 lbs. (680 kg) for four-door models. But even that can be too heavy.

It depends on how you plan to use your rig. For example, speed, altitude, road grades, outside temperature and how much your vehicle is used to pull a trailer are all important. And, it can also depend on any special equipment that you have on your vehicle.

You can ask your dealer for our trailering information or advice, or you can write us at:

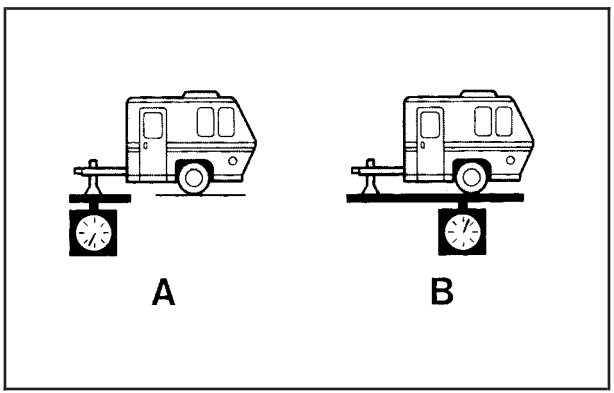
Chevrolet
Chevrolet Customer Assistance
P.O. Box 33170
Detroit, MI 48232-5170

In Canada, write to:

General Motors of Canada Limited
Customer Communication Centre, 163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Weight of the Trailer Tongue

The tongue load (A) of any trailer is an important weight to measure because it affects the total or gross weight of your vehicle. The Gross Vehicle Weight (GVW) includes the curb weight of the vehicle, any cargo you may carry in it, and the people who will be riding in the vehicle. And if you will tow a trailer, you must add the tongue load to the GVW because your vehicle will be carrying that weight, too. See *Loading Your Vehicle on page 4-51* for more information about your vehicle's maximum load capacity.



If you're using a weight-carrying or a weight-distributing hitch, the trailer tongue weight (A) should be 10 percent to 15 percent of the total loaded trailer weight (B). Do not exceed the maximum allowable tongue weight for your vehicle.

After you've loaded your trailer, weigh the trailer and then the tongue, separately, to see if the weights are proper. If they aren't, you may be able to get them right simply by moving some items around in the trailer.

Total Weight on Your Vehicle's Tires

Be sure your vehicle's tires are inflated to the upper limit for cold tires. You'll find these numbers on the tire-loading information label at the rear edge of the driver's door or see *Tires on page 5-59*. Then be sure you don't go over the GVW limit for your vehicle, including the weight of the trailer tongue.

Hitches

It's important to have the correct hitch equipment. Crosswinds, large trucks going by and rough roads are a few reasons why you'll need the right hitch. Here are some rules to follow:

- If you make holes in the body of your vehicle, be sure to seal them when you remove the trailering equipment. If you don't seal them, dirt, water, and even deadly carbon monoxide (CO) from your exhaust can get into your vehicle. See *Engine Exhaust on page 2-32*.

Your vehicle is readily designed to accept a trailer hitch. The frame rail ends already have holes and weld nuts in place to accept the four bolts needed to attach the hitch bar.

To help simplify setting up your trailer lights, there is a trailer wiring connector located behind the left rear trim panel. If needed, your dealer can provide help in removing the trim panel and accessing this wiring connector.

Your vehicle's trailer wiring has separate turn signal and brake light circuits, which means you will most likely need to purchase a converter to operate conventional trailer lights.

Safety Chains

You should always attach chains between your vehicle and your trailer. Cross the safety chains under the tongue of the trailer to help prevent the tongue from contacting the road if it becomes separated from the hitch. Instructions about safety chains may be provided by the hitch manufacturer or by the trailer manufacturer. Follow the manufacturer's recommendation for attaching safety chains and do not attach them to the bumper. Always leave just enough slack so you can turn with your rig. Never allow safety chains to drag on the ground.

Trailer Brakes

If your trailer weighs more than 1,000 lbs. (450 kg) loaded, then it needs its own surge brakes. Tapping into your vehicle's brake system is not recommended.

Driving with a Trailer

Towing a trailer requires a certain amount of experience. Before setting out for the open road, you'll want to get to know your rig. Acquaint yourself with the feel of handling and braking with the added weight of the trailer. And always keep in mind that the vehicle you are driving is now a good deal longer and not nearly as responsive as your vehicle is by itself.

Before you start, check the trailer hitch and platform (and attachments), safety chains, electrical connector, lamps, tires and mirror adjustment. If the trailer has electric brakes, start your vehicle and trailer moving and then apply the trailer brake controller by hand to be sure the brakes are working. This lets you check your electrical connection at the same time.

During your trip, check occasionally to be sure that the load is secure, and that the lamps and any trailer brakes are still working.

Following Distance

Stay at least twice as far behind the vehicle ahead as you would when driving your vehicle without a trailer. This can help you avoid situations that require heavy braking and sudden turns.

Passing

You'll need more passing distance up ahead when you're towing a trailer. And, because you're a good deal longer, you'll need to go much farther beyond the passed vehicle before you can return to your lane.

Backing Up

Hold the bottom of the steering wheel with one hand. Then, to move the trailer to the left, just move that hand to the left. To move the trailer to the right, move your hand to the right. Always back up slowly and, if possible, have someone guide you.

Making Turns

Notice: **Making very sharp turns while trailering could cause the trailer to come in contact with the vehicle. Your vehicle could be damaged. Avoid making very sharp turns while trailering.**

When you're turning with a trailer, make wider turns than normal. Do this so your trailer won't strike soft shoulders, curbs, road signs, trees or other objects. Avoid jerky or sudden maneuvers. Signal well in advance.

Turn Signals When Towing a Trailer

When you tow a trailer, your vehicle has to have extra wiring.

The arrows on your instrument panel will flash whenever you signal a turn or lane change. Properly hooked up, the trailer lamps will also flash, telling other drivers you're about to turn, change lanes or stop.

When towing a trailer, the arrows on your instrument panel may flash for turns even if the bulbs on the trailer are burned out. Thus, you may think drivers behind you are seeing your signal when they are not. It's important to check occasionally to be sure the trailer bulbs are still working.

Driving On Grades

Reduce speed and shift to a lower gear *before* you start down a long or steep downgrade. If you don't shift down, you might have to use your brakes so much that they would get hot and no longer work well.

If you are towing a trailer and you have a manual transmission with FIFTH (5) gear, you may prefer not to use FIFTH (5). Just drive in FOURTH (4) (or, as you need to, a lower gear).

Parking on Hills

⚠ CAUTION:

You really should not park your vehicle, with a trailer attached, on a hill. If something goes wrong, your rig could start to move. People can be injured, and both your vehicle and the trailer can be damaged.

But if you ever have to park your rig on a hill, here's how to do it:

1. Apply your regular brakes, but don't shift into PARK (P) yet, or into gear for a manual transmission.
2. Have someone place chocks under the trailer wheels.
3. When the wheel chocks are in place, release the regular brakes until the chocks absorb the load.
4. Reapply the regular brakes. Then apply your parking brake, and then shift to PARK (P), or REVERSE (R) for a manual transmission.

5. If you have a four-wheel-drive vehicle, be sure the transfer case is in a drive gear – not in NEUTRAL.
6. Release the regular brakes.

⚠ CAUTION:

It can be dangerous to get out of your vehicle if the shift lever is not fully in PARK (P) with the parking brake firmly set. Your vehicle can roll.

If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure your vehicle won't move, even when you're on fairly level ground, use the steps that follow.

Always put the shift lever fully in PARK (P) with the parking brake firmly set.

If the transfer case on four-wheel-drive vehicles is in NEUTRAL, your vehicle will be free to roll, even if your shift lever is in PARK (P). So, be sure the transfer case is in a drive gear — not in NEUTRAL.

When You Are Ready to Leave After Parking on a Hill

1. Apply your regular brakes and hold the pedal down while you:
   - start your engine,
   - shift into a gear, and
   - release the parking brake.
2. Let up on the brake pedal.
3. Drive slowly until the trailer is clear of the chocks.
4. Stop and have someone pick up and store the chocks.

Maintenance When Trailer Towing

Your vehicle will need service more often when you're pulling a trailer. See the Maintenance Schedule for more on this. Things that are especially important in trailer operation are automatic transmission fluid (don't overfill), engine oil, axle lubricant, belts, cooling system and brake system. Each of these is covered in this manual, and the Index will help you find them quickly. If you're trailering, it's a good idea to review these sections before you start your trip.

Check periodically to see that all hitch nuts and bolts are tight.

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Service

Your dealer knows your vehicle best and wants you to be happy with it. We hope you will go to your dealer for all your service needs. You will get genuine GM parts and GM-trained and supported service people.

We hope you will want to keep your GM vehicle all GM. Genuine GM parts have one of these marks:

Doing Your Own Service Work

If you want to do some of your own service work, you will want to use the proper service manual. It tells you much more about how to service your vehicle than this manual can. To order the proper service manual, see *Service Publications Ordering Information on page 7-11*.

Your vehicle has an air bag system. Before attempting to do your own service work, see *Servicing Your Air Bag-Equipped Vehicle on page 1-60*.

You should keep a record with all parts receipts and list the mileage and the date of any service work you perform. See *Part E: Maintenance Record on page 6-32*.

⚠ CAUTION:

You can be injured and your vehicle could be damaged if you try to do service work on a vehicle without knowing enough about it.

CAUTION: (Continued)

CAUTION: (Continued)

- **Be sure you have sufficient knowledge, experience, the proper replacement parts and tools before you attempt any vehicle maintenance task.**
- **Be sure to use the proper nuts, bolts and other fasteners. “English” and “metric” fasteners can be easily confused. If you use the wrong fasteners, parts can later break or fall off. You could be hurt.**

Adding Equipment to the Outside of Your Vehicle

Things you might add to the outside of your vehicle can affect the airflow around it. This may cause wind noise and affect windshield washer performance. Check with your dealer before adding equipment to the outside of your vehicle.

Fuel

Use of the recommended fuel is an important part of the proper maintenance of your vehicle.

Gasoline Octane

Use regular unleaded gasoline with a posted octane of 87 or higher. If the octane is less than 87, you may get a heavy knocking noise when you drive. If this occurs, use a gasoline rated at 87 octane or higher as soon as possible. Otherwise, you might damage your engine. A little pinging noise when you accelerate or drive uphill is considered normal. This does not indicate a problem exists or that a higher-octane fuel is necessary. If you are using 87 octane or higher-octane fuel and hear heavy knocking, your engine needs service.

Gasoline Specifications

It is recommended that gasoline meet specifications which were developed by the American Automobile Manufacturers Association and endorsed by the Canadian Vehicle Manufacturers Association for better vehicle performance and engine protection. Gasoline meeting these specifications could provide improved driveability and emission control system performance compared to other gasoline.

Canada Only

In Canada, look for the "Auto Makers' Choice" label on the pump.

California Fuel

If your vehicle is certified to meet California Emission Standards (see the underhood emission control label), it is designed to operate on fuels that meet California specifications. If this fuel is not available in states adopting California emissions standards, your vehicle will operate satisfactorily on fuels meeting federal specifications, but emission control system performance may be affected. The malfunction indicator lamp may turn on (see *Malfunction Indicator Lamp on page 3-31*) and your vehicle may fail a smog-check test. If this occurs, return to your authorized GM dealer for diagnosis. If it is determined that the condition is caused by the type of fuel used, repairs may not be covered by your warranty.

Additives

To provide cleaner air, all gasolines in the United States are now required to contain additives that will help prevent engine and fuel system deposits from forming, allowing your emission control system to work properly. You should not have to add anything to your fuel. Gasolines containing oxygenates, such as ethers and ethanol, and reformulated gasolines may be available in your area to contribute to clean air. General Motors recommends that you use these gasolines, particularly if they comply with the specifications described earlier.

Notice: **Your vehicle was not designed for fuel that contains methanol. Do not use fuel containing methanol. It can corrode metal parts in your fuel system and also damage the plastic and rubber parts. That damage would not be covered under your warranty.**

Some gasolines that are not reformulated for low emissions may contain an octane-enhancing additive called methylcyclopentadienyl manganese tricarbonyl (MMT); ask the attendant where you buy gasoline whether the fuel contains MMT. General Motors does not recommend the use of such gasolines. Fuels containing MMT can reduce the life of spark plugs and the performance of the emission control system may be affected. The malfunction indicator lamp may turn on. If this occurs, return to your authorized GM dealer for service.

Fuels in Foreign Countries

If you plan on driving in another country outside the United States or Canada, the proper fuel may be hard to find. Never use leaded gasoline or any other fuel not recommended in the previous text on fuel. Costly repairs caused by use of improper fuel would not be covered by your warranty.

To check the fuel availability, ask an auto club, or contact a major oil company that does business in the country where you will be driving.

Filling Your Tank

⚠ CAUTION:

Fuel vapor is highly flammable. It burns violently, and that can cause very bad injuries. Do not smoke if you are near fuel or refueling your vehicle. Keep sparks, flames and smoking materials away from fuel.

The fuel cap is located behind a hinged door on the passenger's side of your vehicle.

While refueling, place the fuel cap in the holder provided.

To remove the fuel cap, turn it slowly to the left (counterclockwise).

⚠ CAUTION:

If you get fuel on yourself and then something ignites it, you could be badly burned. Fuel can spray out on you if you open the fuel cap too quickly. This spray can happen if your tank is nearly full, and is more likely in hot weather. Open the fuel cap slowly and wait for any "hiss" noise to stop. Then unscrew the cap all the way.

Be careful not to spill fuel. Clean fuel from painted surfaces as soon as possible. See *Cleaning the Outside of Your Vehicle on page 5-82*. When filling the tank do not overfill by squeezing in much more fuel after the pump shuts off.

When you put the fuel cap back on, turn it to the right (clockwise) until you hear a clicking sound. Make sure you fully install the cap. The diagnostic system can determine if the fuel cap has been left off or improperly installed. This would allow fuel to evaporate into the atmosphere. See *Malfunction Indicator Lamp on page 3-31*.

Notice: **If you need a new fuel cap, be sure to get the right type. Your dealer can get one for you. If you get the wrong type, it may not fit properly. This may cause your malfunction indicator lamp to light and may damage your fuel tank and emissions system. See "Malfunction Indicator Lamp" in the Index.**

Filling a Portable Fuel Container

⚠ CAUTION:

Never fill a portable fuel container while it is in your vehicle. Static electricity discharge from the container can ignite the gasoline vapor. You can be badly burned and your vehicle damaged if this occurs. To help avoid injury to you and others:

- **Dispense gasoline only into approved containers.**
- **Do not fill a container while it is inside a vehicle, in a vehicle's trunk, pickup bed or on any surface other than the ground.**
- **Bring the fill nozzle in contact with the inside of the fill opening before operating the nozzle. Contact should be maintained until the filling is complete.**
- **Do not smoke while pumping gasoline.**

Checking Things Under the Hood

⚠ CAUTION:

An electric fan under the hood can start up and injure you even when the engine is not running. Keep hands, clothing and tools away from any underhood electric fan. Don't reach through the grille to release the underhood lever.

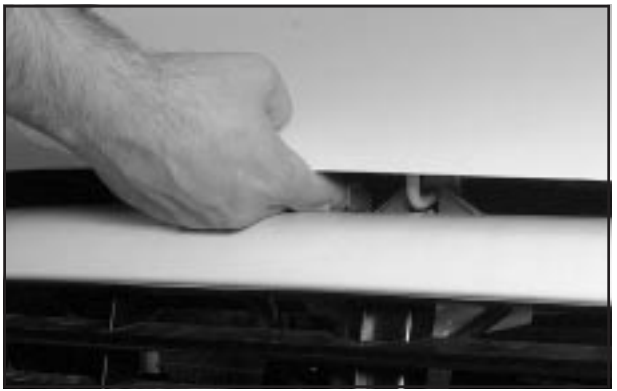
⚠ CAUTION:

Things that burn can get on hot engine parts and start a fire. These include liquids like fuel, oil, coolant, brake fluid, windshield washer and other fluids, and plastic or rubber. You or others could be burned. Be careful not to drop or spill things that will burn onto a hot engine.

Hood Release

To open the hood, do the following:

1. Pull the release handle located on the driver's side of the vehicle on the lower portion of the instrument panel.



2. Then go to the front of the vehicle, pull up on the hood, and push the hood release lever to your right.

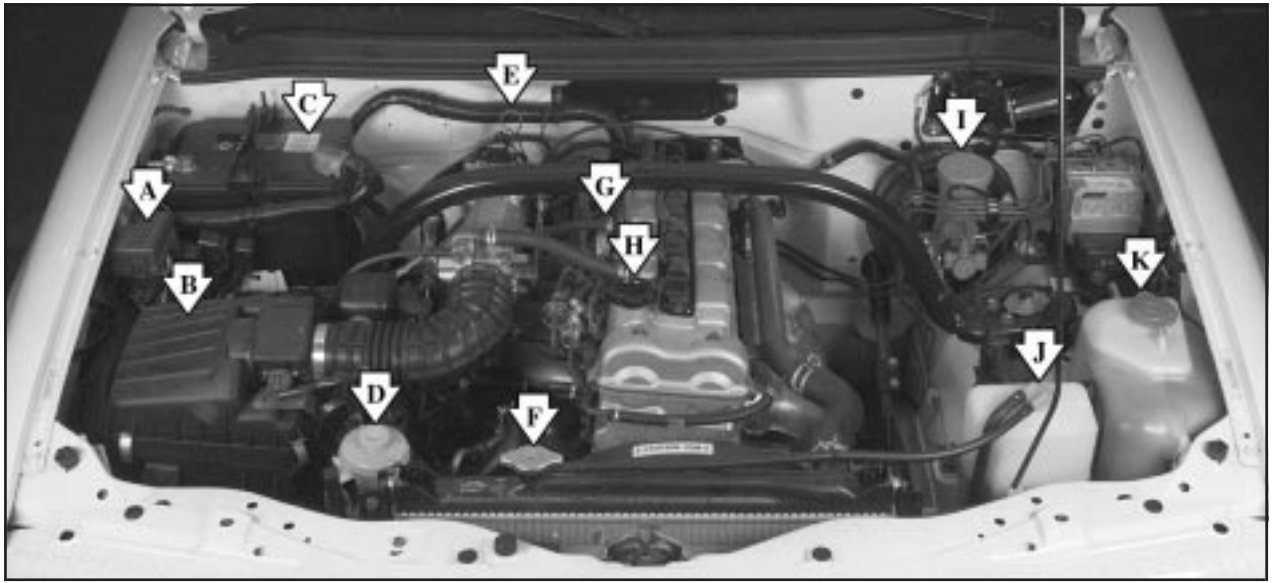
3. Lift the hood, release the hood prop from its retainer and put the hood prop into the slot in the hood.

Before closing the hood, be sure all the filler caps are on.

Then lift the hood to relieve pressure on the hood prop. Remove the hood prop from the slot in the hood and return the prop to its retainer. Then let the hood down and close it firmly.

Engine Compartment Overview

When you open the hood on the 2.0L engine (if equipped), you'll see:



A. Engine Compartment Fuse Block. See “Engine Compartment Fuse Block” under *Fuses and Circuit Breakers on page 5-89*.

B. Engine Air Cleaner/Filter. See *Engine Air Cleaner/Filter on page 5-20*.

C. Battery. See *Battery on page 5-45*.

D. Power Steering Fluid Reservoir. See *Power Steering Fluid on page 5-40*.

E. Automatic Transmission Dipstick (If Equipped). See *Automatic Transmission Fluid on page 5-23*.

F. Radiator Pressure Cap. See *Radiator Pressure Cap on page 5-30*.

G. Engine Oil Dipstick. See *Engine Oil on page 5-16*.

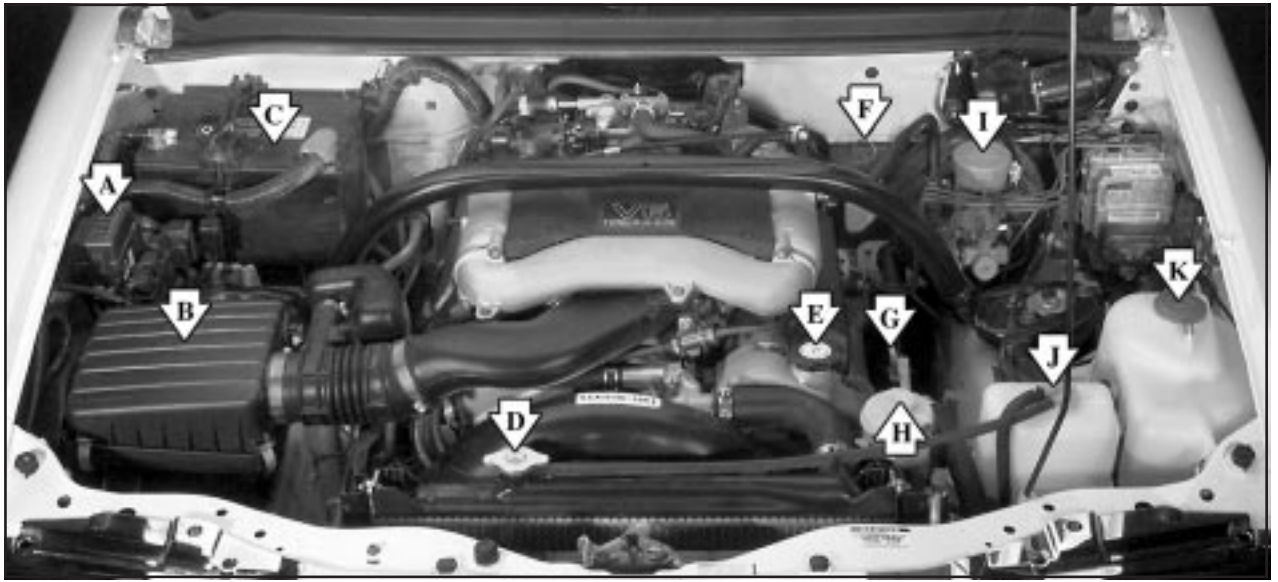
H. Engine Oil Fill Cap. See *Engine Oil on page 5-16*.

I. Brake Fluid Reservoir. See *Brakes on page 5-42*.

J. Engine Coolant Recovery Tank. See *Engine Coolant on page 5-28*.

K. Windshield Washer Reservoir. See *Windshield Washer Fluid on page 5-41*.

When you open the hood on the 2.5L engine (if equipped), you'll see:



A. Engine Compartment Fuse Block. See “Engine Compartment Fuse Block” under *Fuses and Circuit Breakers on page 5-89*.

B. Engine Air Cleaner/Filter. See *Engine Air Cleaner/Filter on page 5-20*.

C. Battery. See *Battery on page 5-45*.

D. Radiator Pressure Cap. See *Radiator Pressure Cap on page 5-30*.

E. Engine Oil Fill Cap. See *Engine Oil on page 5-16*.

F. Automatic Transmission Dipstick. See *Automatic Transmission Fluid on page 5-23*.

G. Engine Oil Dipstick. See *Engine Oil on page 5-16*.

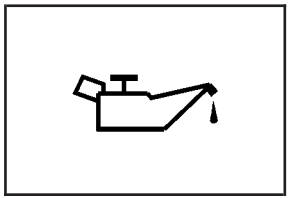
H. Power Steering Fluid Reservoir. See *Power Steering Fluid on page 5-40*.

I. Brake Fluid Reservoir. See *Brakes on page 5-42*.

J. Engine Coolant Recovery Tank. See *Engine Coolant on page 5-28*.

K. Windshield Washer Reservoir. See *Windshield Washer Fluid on page 5-41*.

Engine Oil



If the engine oil pressure light appears on the instrument cluster, it means you need to check your engine oil level right away.

For more information, see *Oil Pressure Light on page 3-34*.

You should check your engine oil level regularly; this is an added reminder.

Checking Engine Oil

It's a good idea to check your engine oil every time you get fuel. In order to get an accurate reading, the oil must be warm and the vehicle must be on level ground.

2.0L Engine

The handle of the engine oil dipstick is a round, yellow ring. On the 2.0L engine it is located near the center of the engine on the passenger's side of the vehicle.

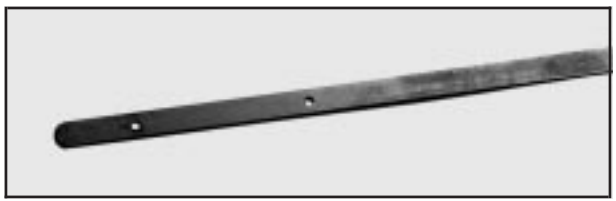
2.5L Engine

The handle of the engine oil dipstick is a round, yellow ring. On the 2.5L engine it is located near the front of the engine compartment towards the driver's side of the vehicle.

See *Engine Compartment Overview on page 5-12* for more information on location.

Turn off the engine and give the oil several minutes to drain back into the oil pan. If you don't, the oil dipstick might not show the actual level.

Pull out the dipstick and clean it with a paper towel or cloth, then push it back in all the way. Remove it again, keeping the tip down, and check the level.



2.0L Engine

2.5L Engine

When to Add Engine Oil

If the oil is at or below the hole at the tip of the dipstick, then you'll need to add up to two quarts of oil. But you must use the right kind. This part explains what kind of oil to use. For engine oil crankcase capacity, see *Capacities and Specifications on page 5-93*.

Notice: **Don't add too much oil. If your engine has so much oil that the oil level gets above the upper mark that shows the proper operating range, your engine could be damaged.**

The engine oil fill cap is located in the front of the engine compartment. See *Engine Compartment Overview on page 5-12* for more information on location.

Be sure to fill it enough to put the level near the upper hole in the dipstick. Push the dipstick all the way back in when you're through.

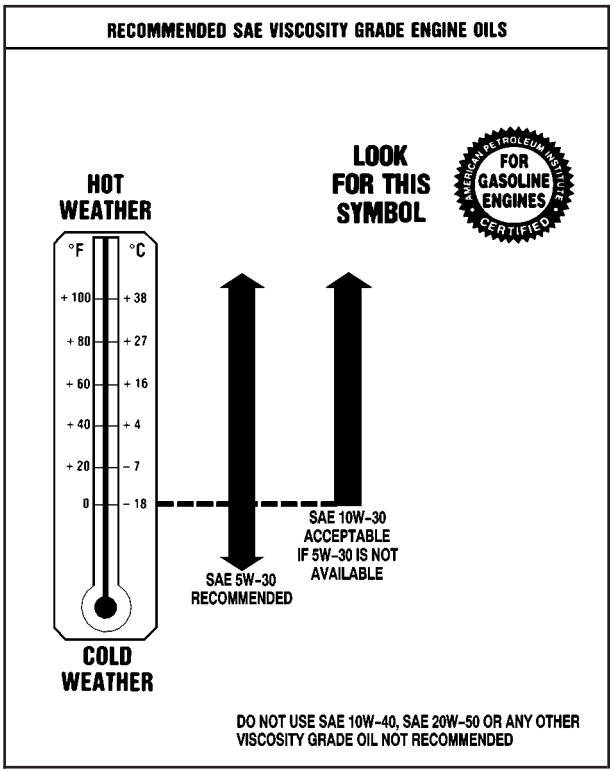
What Kind of Engine Oil to Use

Oils recommended for your vehicle can be identified by looking for the starburst symbol.

This symbol indicates that the oil has been certified by the American Petroleum Institute (API). Do not use any oil which does not carry this starburst symbol.

If you choose to perform the engine oil change service yourself, be sure the oil you use has the starburst symbol on the front of the oil container. If you have your oil changed for you, be sure the oil put into your engine is American Petroleum Institute certified for gasoline engines.

You should also use the proper viscosity oil for your vehicle, as shown in the viscosity chart.



As in the chart shown previously, SAE 5W-30 is the only viscosity grade recommended for your vehicle. You should look for and use only oils which have the API Starburst symbol and which are also identified as SAE 5W-30. If you cannot find such SAE 5W-30 oils, you can use an SAE 10W-30 oil which has the API Starburst symbol, if it's going to be 0°F (–18°C) or above. Do not use other viscosity grade oils, such as SAE 10W-40 or SAE 20W-50 under any conditions.

Notice: **Use only engine oil with the American Petroleum Institute Certified For Gasoline Engines starburst symbol. Failure to use the recommended oil can result in engine damage not covered by your warranty.**

GM Goodwrench® oil meets all the requirements for your vehicle.

If you are in an area of extreme cold, where the temperature falls below –20°F (–29°C), it is recommended that you use either an SAE 5W-30 synthetic oil or an SAE 0W-30 oil. Both will provide easier cold starting and better protection for your engine at extremely low temperatures.

Engine Oil Additives

Don't add anything to your oil. The recommended oils with the starburst symbol are all you will need for good performance and engine protection.

When to Change Engine Oil

If any one of these is true for you, use the short trip/city maintenance schedule:

- Most trips are less than 5 miles (8 km). This is particularly important when outside temperatures are below freezing.
- Most trips include extensive idling (such as frequent driving in stop-and-go traffic).
- You frequently tow a trailer or use a carrier on top of your vehicle.
- The vehicle is used for delivery service, police, taxi or other commercial application.

Driving under these conditions causes engine oil to break down sooner. If any one of these is true for your vehicle, then you need to change your oil and filter every 3,000 miles (5 000 km) or 3 months — whichever occurs first.

If none of them is true, use the long trip/highway maintenance schedule. Change oil and filter every 7,500 miles (12 500 km) or 7.5 months — whichever occurs first. Driving a vehicle with a fully warmed engine under highway conditions will cause engine oil to break down slower.

What to Do with Used Oil

Used engine oil contains certain elements that may be unhealthy for your skin and could even cause cancer. Don't let used oil stay on your skin for very long. Clean your skin and nails with soap and water, or a good hand cleaner. Wash or properly dispose of clothing or rags containing used engine oil. See the manufacturer's warnings about the use and disposal of oil products.

Used oil can be a threat to the environment. If you change your own oil, be sure to drain all the oil from the filter before disposal. Never dispose of oil by putting it in the trash, pouring it on the ground, into sewers, or into streams or bodies of water. Instead, recycle it by taking it to a place that collects used oil. If you have a problem properly disposing of your used oil, ask your dealer, a service station or a local recycling center for help.

Engine Air Cleaner/Filter

See *Engine Compartment Overview on page 5-12* for location of engine air cleaner/filter.

When to Inspect the Engine Air Cleaner/Filter

Inspect the air cleaner/filter every 15,000 miles (25 000 km) and replace every 30,000 miles (50 000 km). If you are driving in dusty/dirty conditions, inspect the filter at each engine oil change.

How to Inspect the Engine Air Cleaner/Filter

To inspect the air cleaner/filter remove the filter from the vehicle and lightly shake the filter to release loose dust and dirt. If the filter remains caked with dirt, a new filter is required.

To inspect or replace the filter, do the following:

1. Release the four clips on the cover.
2. Lift the cover up.

3. Pull out the engine air cleaner/filter and check or replace it.
4. Reinstall the cover and fasten the clips.

⚠ CAUTION:

Operating the engine with the air cleaner/filter off can cause you or others to be burned. The air cleaner not only cleans the air, it helps to stop flame if the engine backfires. If it is not there and the engine backfires, you could be burned. Do not drive with it off, and be careful working on the engine with the air cleaner/filter off.

Notice: **If the air cleaner/filter is off, a backfire can cause a damaging engine fire. And, dirt can easily get into your engine, which will damage it. Always have the air cleaner/filter in place when you're driving.**

Automatic Transmission Fluid

When to Check and Change

A good time to check your automatic transmission fluid level is when the engine oil is changed.

Change both the fluid and filter every 15,000 miles (25 000 km) if the vehicle is mainly driven under one or more of these conditions:

- In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
- In hilly or mountainous terrain.
- When doing frequent trailer towing.
- Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

See *Maintenance Requirements on page 6-2*.

How to Check

Because this operation can be a little difficult, you may choose to have this done at the dealership service department.

If you do it yourself, be sure to follow all the instructions here, or you could get a false reading on the dipstick.

Notice: **Too much or too little fluid can damage your transmission. Too much can mean that some of the fluid could come out and fall on hot engine part or exhaust system parts, starting a fire. Too little fluid could cause the transmission to overheat. Be sure to get an accurate reading if you check your transmission fluid.**

Wait at least 30 minutes before checking the transmission fluid level if you have been driving:

- When outside temperatures are above 90°F (32°C).
- At high speed for quite a while.
- In heavy traffic – especially in hot weather.
- While pulling a trailer.

To get the right reading, the fluid should be at normal operating temperature, which is 180°F to 200°F (82°C to 93°C).

Get the vehicle warmed up by driving about 15 miles (24 km) when outside temperatures are above 50°F (10°C). If it's colder than 50°F (10°C), drive the vehicle in DRIVE (D) until the engine temperature gage moves and then remains steady for 10 minutes.

A cold fluid check can be made after the vehicle has been sitting for eight hours or more with the engine off, but this is used only as a reference. Let the engine run at idle for five minutes if outside temperatures are 50°F (10°C) or more. If it's colder than 50°F (10°C), you may have to idle the engine longer. Should the fluid level be low during this cold check, you *must* check the fluid hot before adding fluid. Checking the fluid hot will give you a more accurate reading of the fluid level.

Checking the Fluid Level

Prepare your vehicle as follows:

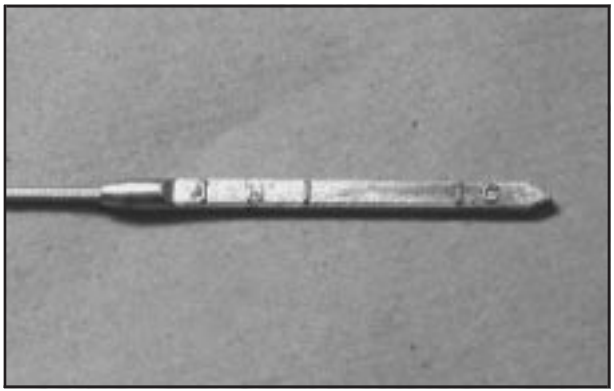
- Park your vehicle on a level place. Keep the engine running.
- With the parking brake applied, place the shift lever in PARK (P).
- With your foot on the brake pedal, move the shift lever through each gear range, pausing for about three seconds in each range. Then, position the shift lever in PARK (P).
- Let the engine run at idle for three minutes or more.

Then, without shutting off the engine, follow these steps:

2.0L Engine shown, 2.5L Engine similar

The automatic transmission dipstick has a red ring handle located in the rear of the engine compartment toward the center of the vehicle. See *Engine Compartment Overview on page 5-12* for more information on location.

1. Pull out the dipstick and wipe it with a clean rag or paper towel.
2. Push it back in all the way, wait three seconds and then pull it back out again.



3. Check both sides of the dipstick, and read the lower level. The fluid level must be in the COLD area for a cold check or in the HOT area for a hot check.
4. If the fluid level is in the acceptable range, push the dipstick back in all the way.

How to Add Fluid

Refer to the Maintenance Schedule to determine what kind of transmission fluid to use. See *Part D: Recommended Fluids and Lubricants on page 6-30*.

Add fluid only after checking the transmission fluid while it is hot. (A cold check is used only as a reference.) If the fluid level is low, add only enough of the proper fluid to bring the level up to the HOT area for a hot check. It doesn't take much fluid, generally less than 0.6 pints (0.3 L). *Don't overfill.*

Notice: **We recommend you use only fluid labeled DEXRON®-III, because fluid with that label is made especially for your automatic transmission. Damage caused by fluid other than DEXRON®-III is not covered by your new vehicle warranty.**

- After adding fluid, recheck the fluid level as described under "How to Check."
- When the correct fluid level is obtained, push the dipstick back in all the way.

Manual Transmission Fluid

When to Check and Change

A good time to have it checked is when the engine oil is changed. Refer to the Maintenance Schedule to determine when to change your transmission fluid. See *Part A: Scheduled Maintenance Services on page 6-4*.

How to Check

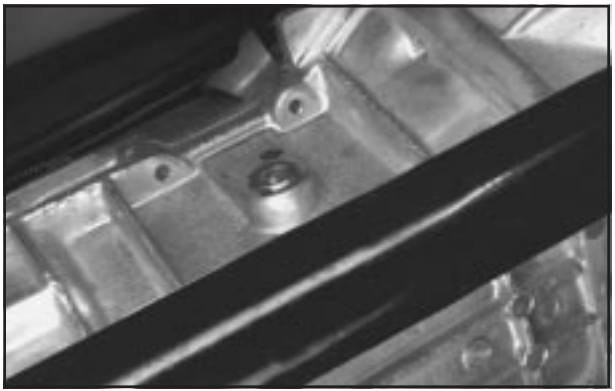
Because this operation can be a little difficult, you may choose to have this done at your Chevrolet dealership service department.

If you do it yourself, be sure to follow all the instructions here, or you could get a false reading.

Notice: **Too much or too little fluid can damage your transmission. Too much can mean that some of the fluid could come out and fall on hot engine part or exhaust system parts, starting a fire. Too little fluid could cause the transmission to overheat. Be sure to get an accurate reading if you check your transmission fluid.**

Check the fluid level only when your engine is off, the vehicle is parked on a level place and the transmission is cool enough for you to rest your fingers on the transmission case.

Then, follow these steps:



1. Remove the filler plug.
2. Check that the lubricant level is up to the bottom of the filler plug hole.
3. If the fluid level is good, install the plug and be sure it is fully seated. If the fluid level is low, add more fluid as described in the next steps.

How to Add Fluid

Here's how to add fluid. Refer to the Maintenance Schedule to determine what kind of fluid to use. See *Part D: Recommended Fluids and Lubricants on page 6-30*.

1. Remove the filler plug.
2. Remove the drain plug, drain the fluid and reinstall the drain plug.
3. Add fluid at the filler plug hole. Add only enough fluid to bring the fluid level up to the bottom of the filler plug hole.
4. Reinstall the filler plug. Be sure the plug is fully seated.

Hydraulic Clutch

It is not necessary to regularly check clutch fluid unless you suspect there is a leak in the system. Adding fluid won't correct a leak.

A fluid loss in this system could indicate a problem. Have the system inspected and repaired.

When to Check and What to Use

Refer to the Maintenance Schedule to determine how often you should check the fluid level in your clutch master cylinder reservoir and for the proper fluid. See *Part B: Owner Checks and Services on page 6-24* and *Part D: Recommended Fluids and Lubricants on page 6-30*.

How to Check and Add Fluid

You do not need to check the fluid level unless you suspect a clutch problem. To check the fluid level, look at the markings on the reservoir. If the fluid reaches the MAX line, the fluid level is correct.

Engine Coolant

The following explains your cooling system and how to add coolant when it is low. If you have a problem with engine overheating, see *Engine Overheating on page 5-31*.

A 50/50 mixture of clean, drinkable water and the proper coolant will:

- Give freezing protection down to –33°F (–36°C)
- Give boiling protection up to 258°F (125°C).
- Protect against rust and corrosion.
- Help keep the proper engine temperature.
- Let the warning lights and gages work as they should.

What to Use

Use a 50/50 mixture of *clean, drinkable water* and coolant that meets GM Specification 1825-M, which won't damage aluminum parts. You can also use a recycled coolant conforming to GM Specification 1825-M with a complete coolant flush and refill. If you use this coolant mixture, you don't need to add anything else.

⚠ CAUTION:

Adding only plain water to your cooling system can be dangerous. Plain water, or some other liquid such as alcohol, can boil before the proper coolant mixture will. Your vehicle's coolant warning system is set for the proper coolant mixture. With plain water or the wrong mixture, your engine could get too hot but you wouldn't get the overheat warning. Your engine could catch fire and you or others could be burned. Use a 50/50 mixture of clean, drinkable water and the proper coolant.

Notice: **If you use an improper coolant mixture, your engine could overheat and be badly damaged. The repair cost wouldn't be covered by your warranty. Too much water in the mixture can freeze and crack the engine, radiator, heater core and other parts.**

If you have to add coolant more than four times a year, have your dealer check your cooling system.

Notice: **If you use the proper coolant, you don't have to add extra inhibitors or additives which claim to improve the system. These can be harmful.**

Checking Coolant

The coolant recovery tank is located toward the front of the engine compartment on the driver's side of the vehicle. See *Engine Compartment Overview on page 5-12* for more information on location.

The vehicle must be on a level surface. When your engine is cold, the coolant level should be at LOW, or a little higher. When your engine is warm, the level should be up to FULL, or a little higher.

Adding Coolant

If you need more coolant, add the proper coolant mixture *at the coolant recovery tank.*

⚠ CAUTION:

Turning the radiator pressure cap when the engine and radiator are hot can allow steam and scalding liquids to blow out and burn you badly. With the coolant recovery tank, you will almost never have to add coolant at the radiator. Never turn the radiator pressure cap — even a little — when the engine and radiator are hot.

Add coolant mixture at the recovery tank, but be careful not to spill it.

> **⚠ CAUTION:**
>
> **You can be burned if you spill coolant on hot engine parts. Coolant contains ethylene glycol, and it will burn if the engine parts are hot enough. Don't spill coolant on a hot engine.**

Occasionally check the coolant level in the radiator. For information on how to add coolant to the radiator, see *Cooling System on page 5-33*.

Radiator Pressure Cap

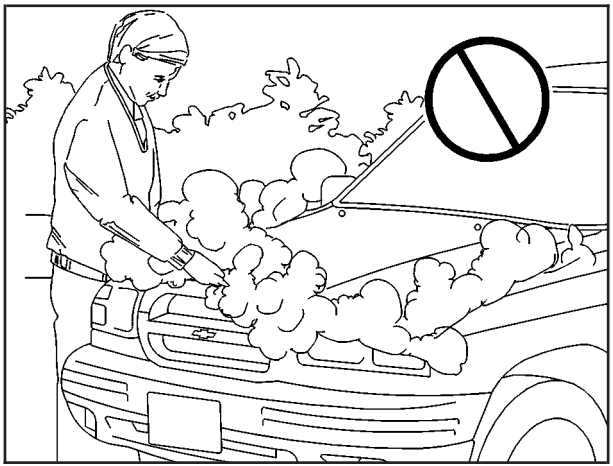
See *Engine Compartment Overview on page 5-12* for information on location.

Notice: **If the pressure cap is not tightly installed, coolant loss and possible engine damage may occur. Be sure the cap is properly and tightly secured.**

Engine Overheating

You will find a coolant temperature gage on your vehicle's instrument panel cluster. See *Engine Coolant Temperature Gage on page 3-31*.

If Steam Is Coming From Your Engine



⚠ CAUTION:

Steam from an overheated engine can burn you badly, even if you just open the hood. Stay away from the engine if you see or hear steam coming from it. Just turn it off and get everyone away from the vehicle until it cools down. Wait until there is no sign of steam or coolant before you open the hood.

If you keep driving when your engine is overheated, the liquids in it can catch fire. You or others could be badly burned. Stop your engine if it overheats, and get out of the vehicle until the engine is cool.

Notice: **If your engine catches fire because you keep driving with no coolant, your vehicle can be badly damaged. The costly repairs would not be covered by your warranty.**

If No Steam Is Coming From Your Engine

If you get an engine overheat warning but see or hear no steam, the problem may not be too serious. Sometimes the engine can get a little too hot when you:

- Climb a long hill on a hot day.
- Stop after high-speed driving.
- Idle for long periods in traffic.
- Tow a trailer.

If you get the overheat warning with no sign of steam, try this for a minute or so:

1. In heavy traffic, let the engine idle in NEUTRAL (N) while stopped. If it is safe to do so, pull off the road, shift to PARK (P) or NEUTRAL (N) and let the engine idle.
2. Turn on your heater to full hot at the highest fan speed and open the window as necessary.

If you no longer have the overheat warning, you can drive. Just to be safe, drive slower for about 10 minutes. If the warning doesn't come back on, you can drive normally.

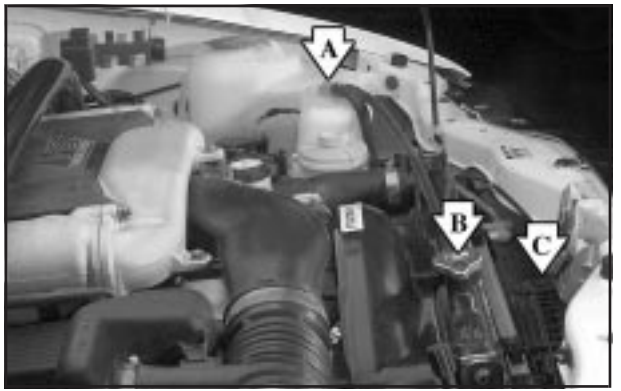
If the warning continues, pull over, stop, and park your vehicle right away.

If there's still no sign of steam, push down the accelerator until the engine speed is about twice as fast as normal idle speed for at least three minutes while you're parked. If you still have the warning, *turn off the engine and get everyone out of the vehicle* until it cools down.

You may decide not to lift the hood but to get service help right away.

Cooling System

When you decide it's safe to lift the hood, here's what you'll see:

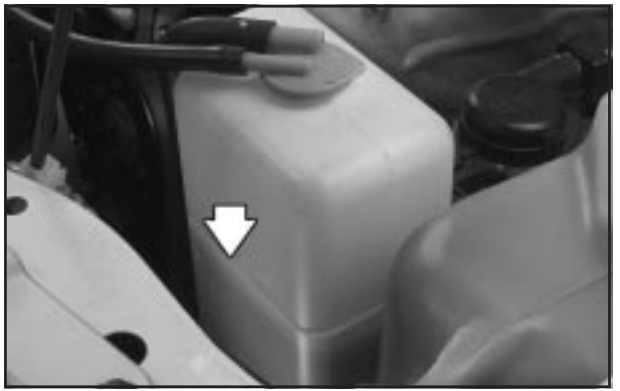


A. Coolant Recovery Tank
B. Radiator Pressure Cap
C. Engine Cooling Fan

⚠ CAUTION:

An electric engine cooling fan under the hood can start up even when the engine is not running and can injure you. Keep hands, clothing and tools away from any underhood electric fan. Don't reach through the grill to release the underhood lever.

If the coolant inside the coolant recovery tank is boiling, don't do anything else until it cools down. The vehicle should be parked on a level surface.



The coolant level should be at or above FULL. If it isn't, you may have a leak at the pressure cap or in the radiator hoses, heater hoses, radiator, water pump or somewhere else in the cooling system.

⚠ CAUTION:

Heater and radiator hoses, and other engine parts, can be very hot. Do not touch them. If you do, you can be burned.

Do not run the engine if there is a leak. If you run the engine, it could lose all coolant. That could cause an engine fire, and you could be burned. Get any leak fixed before you drive the vehicle.

If there seems to be no leak, start the engine again. The engine cooling fan speed should increase when idle speed is doubled by pushing the accelerator pedal down. If it doesn't, your vehicle needs service. Turn off the engine.

Notice: **Engine damage from running your engine without coolant isn't covered by your warranty.**

How to Add Coolant to the Coolant Recovery Tank

If you haven't found a problem yet, but the coolant level isn't at or above the FULL mark, add a 50/50 mixture of *clean, drinkable water* and a proper coolant at the coolant recovery tank. See *Engine Coolant on page 5-28* for more information about the proper coolant mixture.

⚠ CAUTION:

Adding only plain water to your cooling system can be dangerous. Plain water, or some other liquid such as alcohol, can boil before the proper coolant mixture will. Your vehicle's coolant warning system is set for the proper

CAUTION: (Continued)

CAUTION: (Continued)

coolant mixture. With plain water or the wrong mixture, your engine could get too hot but you wouldn't get the overheat warning. Your engine could catch fire and you or others could be burned. Use a 50/50 mixture of clean, drinkable water and a proper coolant.

Notice: **In cold weather, water can freeze and crack the engine, radiator, heater core and other parts. Use the recommended coolant and the proper coolant mixture.**

⚠ CAUTION:

You can be burned if you spill coolant on hot engine parts. Coolant contains ethylene glycol and it will burn if the engine parts are hot enough. Do not spill coolant on a hot engine.

When the coolant in the coolant recovery tank is at or above the FULL mark, start your vehicle.

If the overheat warning continues, there's one more thing you can try. You can add the proper coolant mixture directly to the radiator, but be sure the cooling system is cool before you do it.

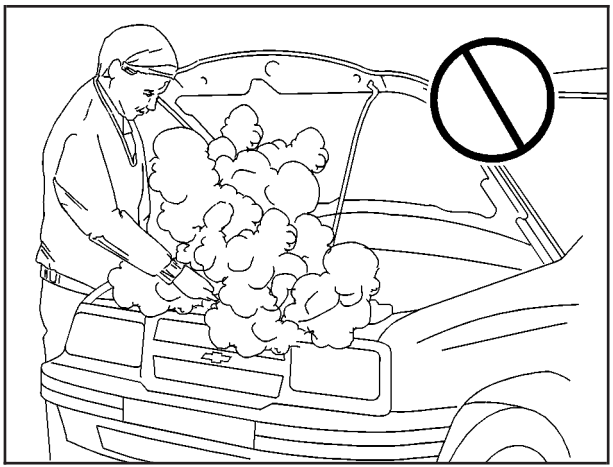
⚠ CAUTION:

Steam and scalding liquids from a hot cooling system can blow out and burn you badly. They are under pressure, and if you turn the radiator pressure cap — even a little — they can come out at high speed.

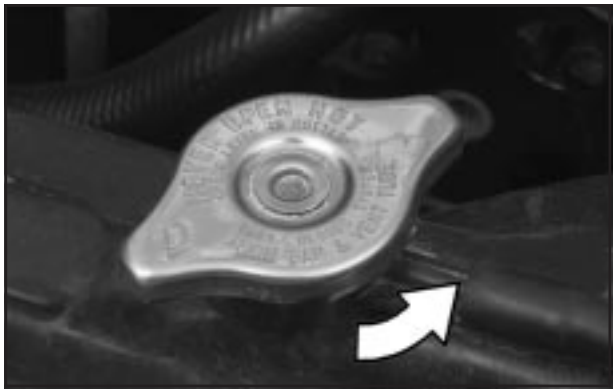
CAUTION: (Continued)

CAUTION: (Continued)

Never turn the cap when the cooling system, including the radiator pressure cap, is hot. Wait for the cooling system and radiator pressure cap to cool if you ever have to turn the pressure cap.

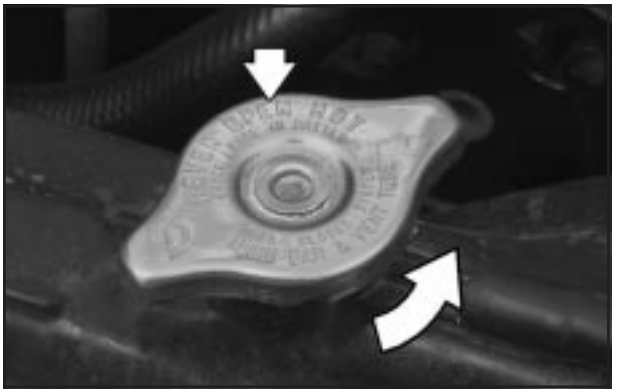


How to Add Coolant to the Radiator



1. You can remove the radiator pressure cap when the cooling system, including the radiator pressure cap and upper radiator hose, is no longer hot. Turn the pressure cap slowly counterclockwise until it first stops. (Don't press down while turning the pressure cap.)

   If you hear a hiss, wait for that to stop. A hiss means there is still some pressure left.



2. Then keep turning the pressure cap, but now push down as you turn it. Remove the pressure cap.

3. Fill the radiator with the proper coolant mixture, up to the base of the filler neck. See *Engine Coolant on page 5-28* for more information about the proper coolant mixture.
4. Then fill the coolant recovery tank to the FULL mark.
5. Put the cap back on the coolant recovery tank, but leave the radiator pressure cap off.

6. Start the engine and let it run until you can feel the upper radiator hose getting hot. Watch out for the engine cooling fan.
7. By this time, the coolant level inside the radiator filler neck may be lower. If the level is lower, add more of the proper coolant mixture through the filler neck until the level reaches the base of the filler neck.
8. Then replace the pressure cap. At any time during this procedure if coolant begins to flow out of the filler neck, reinstall the pressure cap. Be sure the arrows on the pressure cap line up like this.

Power Steering Fluid

When to Check Power Steering Fluid

It is not necessary to regularly check power steering fluid unless you suspect there is a leak in the system or you hear an unusual noise. A fluid loss in this system could indicate a problem. Have the system inspected and repaired. See *Engine Compartment Overview on page 5-12* for reservoir location.

How to Check Power Steering Fluid

You can check your fluid without taking the cap off. The level should fall between the MIN and MAX marks on the reservoir.

What to Use

To determine what kind of fluid to use, see *Part D: Recommended Fluids and Lubricants on page 6-30*.

Notice: **When adding power steering fluid or making a complete fluid change, always use the proper fluid. Failure to use the proper fluid can cause leaks and damage hoses and seals.**

Windshield Washer Fluid

What to Use

When you need windshield washer fluid, be sure to read the manufacturer's instructions before use. If you will be operating your vehicle in an area where the temperature may fall below freezing, use a fluid that has sufficient protection against freezing. See *Engine Compartment Overview on page 5-12* for reservoir location.

Adding Washer Fluid

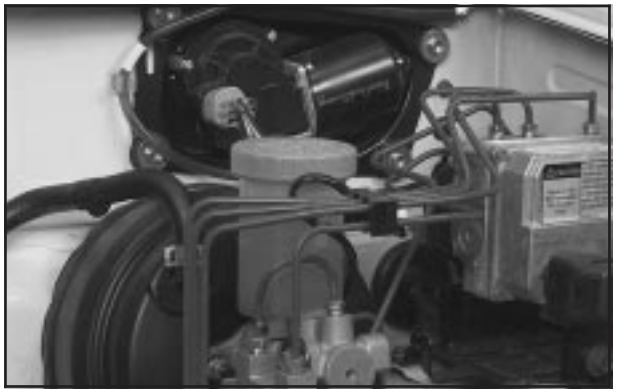
Open the cap with the washer symbol on it. Add washer fluid until the tank is full.

Notice:

- **When using concentrated washer fluid, follow the manufacturer's instructions for adding water.**
- **Don't mix water with ready-to-use washer fluid. Water can cause the solution to freeze and damage your washer fluid tank and other parts of the washer system. Also, water doesn't clean as well as washer fluid.**
- **Fill your washer fluid tank only three-quarters full when it's very cold. This allows for expansion if freezing occurs, which could damage the tank if it is completely full.**
- **Don't use engine coolant (antifreeze) in your windshield washer. It can damage your washer system and paint.**

Brakes

Brake Fluid



Your brake master cylinder reservoir is filled with DOT-3 brake fluid. See *Engine Compartment Overview on page 5-12* for the location of the reservoir.

There are only two reasons why the brake fluid level in the reservoir might go down. The first is that the brake fluid goes down to an acceptable level during normal brake lining wear. When new linings are put in, the fluid level goes back up. The other reason is that fluid is leaking out of the brake system. If it is, you should have your brake system fixed, since a leak means that sooner or later your brakes will not work well, or will not work at all.

So, it is not a good idea to “top off” your brake fluid. Adding brake fluid will not correct a leak. If you add fluid when your linings are worn, then you will have too much fluid when you get new brake linings. You should add (or remove) brake fluid, as necessary, only when work is done on the brake hydraulic system.

⚠ CAUTION:

If you have too much brake fluid, it can spill on the engine. The fluid will burn if the engine is hot enough. You or others could be burned, and your vehicle could be damaged. Add brake fluid only when work is done on the brake hydraulic system. See “Checking Brake Fluid” in this section.

Refer to the Maintenance Schedule to determine when to check your brake fluid. See *Part C: Periodic Maintenance Inspections on page 6-28*.

Checking Brake Fluid

You can check the brake fluid without taking off the cap.

Just look at the brake fluid reservoir. The fluid level should be above MIN. If it is not, have your brake system checked to see if there is a leak.

After work is done on the brake hydraulic system, make sure the level is above the MIN but not over the MAX mark.

What to Add

When you do need brake fluid, use only DOT-3 brake fluid. Use new brake fluid from a sealed container only. See *Part D: Recommended Fluids and Lubricants on page 6-30*.

Always clean the brake fluid reservoir cap and the area around the cap before removing it. This will help keep dirt from entering the reservoir.

⚠ CAUTION:

With the wrong kind of fluid in your brake system, your brakes may not work well, or they may not even work at all. This could cause a crash. Always use the proper brake fluid.

Notice:

- **Using the wrong fluid can badly damage brake system parts. For example, just a few drops of mineral-based oil, such as engine oil, in your brake system can damage brake system parts so badly that they will have to be replaced. Do not let someone put in the wrong kind of fluid.**
- **If you spill brake fluid on your vehicle's painted surfaces, the paint finish can be damaged. Be careful not to spill brake fluid on your vehicle. If you do, wash it off immediately. See *Appearance Care on page 5-79*.**

Brake Wear

Your vehicle has front disc brakes and rear drum brakes.

Disc brake pads have built-in wear indicators that make a high-pitched warning sound when the brake pads are worn and new pads are needed. The sound may come and go or be heard all the time your vehicle is moving (except when you are pushing on the brake pedal firmly).

⚠ CAUTION:

The brake wear warning sound means that soon your brakes will not work well. That could lead to an accident. When you hear the brake wear warning sound, have your vehicle serviced.

Notice: **Continuing to drive with worn-out brake pads could result in costly brake repair.**

Some driving conditions or climates may cause a brake squeal when the brakes are first applied or lightly applied. This does not mean something is wrong with your brakes.

Properly torqued wheel nuts are necessary to help prevent brake pulsation. When tires are rotated, inspect brake pads for wear and evenly tighten wheel nuts in the proper sequence to GM torque specifications.

Your rear drum brakes do not have wear indicators, but if you ever hear a rear brake rubbing noise, have the rear brake linings inspected immediately. Also, the rear brake drums should be removed and inspected each time the tires are removed for rotation or changing. When you have the front brake pads replaced, have the rear brakes inspected, too.

Brake linings should always be replaced as complete axle sets.

See *Brake System Inspection on page 6-29*.

Brake Pedal Travel

See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign of brake trouble.

Brake Adjustment

Every time you make a brake stop, your disc brakes adjust for wear.

Replacing Brake System Parts

The braking system on a vehicle is complex. Its many parts have to be of top quality and work well together if the vehicle is to have really good braking. Your vehicle was designed and tested with top-quality GM brake parts. When you replace parts of your braking system — for example, when your brake linings wear down and you need new ones put in — be sure you get new approved GM replacement parts. If you do not, your brakes may no longer work properly. For example, if someone puts in brake linings that are wrong for your vehicle, the balance between your front and rear brakes can change — for the worse. The braking performance you have come to expect can change in many other ways if someone puts in the wrong replacement brake parts.

Battery

Your new vehicle comes with a maintenance free battery. When it's time for a new battery, get one that has the replacement number shown on the original battery's label. We recommend an ACDelco® battery. See *Engine Compartment Overview on page 5-12* for battery location.

Warning: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

Vehicle Storage

If you're not going to drive your vehicle for 25 days or more, remove the black, negative (–) cable from the battery. This will help keep your battery from running down.

⚠ CAUTION:

Batteries have acid that can burn you and gas that can explode. You can be badly hurt if you are not careful. See *Jump Starting on page 5-46* for tips on working around a battery without getting hurt.

Contact your dealer to learn how to prepare your vehicle for longer storage periods.

Jump Starting

If your battery has run down, you may want to use another vehicle and some jumper cables to start your vehicle. Be sure to follow the steps below to do it safely.

⚠ CAUTION:

Batteries can hurt you. They can be dangerous because:

- **They contain acid that can burn you.**
- **They contain gas that can explode or ignite.**
- **They contain enough electricity to burn you.**

If you do not follow these steps exactly, some or all of these things can hurt you.

Notice: **Ignoring these steps could result in costly damage to your vehicle that wouldn't be covered by your warranty.**

Trying to start your vehicle by pushing or pulling it won't work, and it could damage your vehicle.

1. Check the other vehicle. It must have a 12-volt battery with a negative ground system.

Notice: **If the other vehicle's system is not a 12-volt system with a negative ground, both vehicles can be damaged. Only use vehicles with 12-volt systems with negative grounds to jump start your vehicle.**

2. Get the vehicles close enough so the jumper cables can reach, but be sure the vehicles aren't touching each other. If they are, it could cause a ground connection you don't want. You wouldn't be able to start your vehicle, and the bad grounding could damage the electrical systems.

   To avoid the possibility of the vehicles rolling, set the parking brake firmly on both vehicles involved in the jump start procedure. Put an automatic transmission in PARK (P) or a manual transmission in NEUTRAL before setting the parking brake.

Notice: **If you leave your radio or other accessories on during the jump starting procedure, they could be damaged. The repairs would not be covered by your warranty. Always turn off your radio and other accessories when jump starting your vehicle.**

3. Turn off the ignition on both vehicles. Unplug unnecessary accessories plugged into the cigarette lighter. Turn off the radio and all lamps that aren't needed. This will help reduce sparks and help save both batteries. And it could save your radio!
4. Open the hoods and locate the batteries. Find the positive (+) and negative (–) terminal locations on each battery. See *Engine Compartment Overview on page 5-12* for more information on battery location.

⚠ CAUTION:

If your vehicle has air conditioning, the auxiliary electric fan under the hood can start up even when the engine is not running and can injure you. Keep hands, clothing and tools away from any underhood electric fan.

⚠ CAUTION:

Using a match near a battery can cause battery gas to explode. People have been hurt doing this, and some have been blinded. Use a flashlight if you need more light.

Be sure the battery has enough water. You don't need to add water to the battery installed in your new vehicle. But if a battery has filler caps, be sure the right amount of fluid is there. If it is low, add water to take care of that first. If you don't, explosive gas could be present.

Battery fluid contains acid that can burn you. Don't get it on you. If you accidentally get it in your eyes or on your skin, flush the place with water and get medical help immediately.

⚠ CAUTION:

Fans or other moving engine parts can injure you badly. Keep your hands away from moving parts once the engine is running.

5. Check that the jumper cables don't have loose or missing insulation. If they do, you could get a shock. The vehicles could be damaged too.

   Before you connect the cables, here are some basic things you should know. Positive (+) will go to a positive (+) battery terminal if the vehicle has one. Negative (–) will go to a heavy, unpainted metal engine part or to a remote negative (–) terminal if the vehicle has one.

   Don't connect positive (+) to negative (–) or you'll get a short that would damage the battery and maybe other parts too. And don't connect the negative (–) cable to the negative (–) terminal on the dead battery because this can cause sparks.

6. Connect the red positive (+) cable to the positive (+) terminal of the dead battery. Use a remote positive (+) terminal if the vehicle has one.

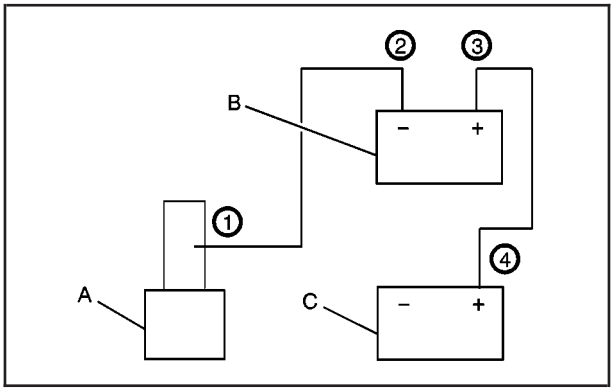
7. Don't let the other end touch metal. Connect it to the positive (+) terminal of the good battery. Use a remote positive (+) terminal if the vehicle has one.

8. Now connect the black negative (–) cable to the negative (–) terminal of the good battery. Use a remote negative (–) terminal if the vehicle has one.

Don't let the other end touch anything until the next step. The other end of the negative (–) cable *doesn't* go to the dead battery. It goes to a heavy, unpainted metal engine part or to a remote negative (–) terminal on the vehicle with the dead battery.

9. Connect the other end of the negative (–) cable at least 18 inches (45 cm) away from the dead battery, but not near engine parts that move. The electrical connection is just as good there, but the chance of sparks getting back to the battery is much less.
10. Now start the vehicle with the good battery and run the engine for a while.
11. Try to start the vehicle with the dead battery. If it won't start after a few tries, it probably needs service.

Notice: **If the jumper cables are removed in the wrong order, electrical shorting may occur and damage the vehicle. The repairs would not be covered by your warranty. Remove the jumper cables in the correct order, making sure that the cables do not touch each other or other metal.**



Jumper Cable Removal

A. Heavy, Unpainted Metal Engine Part
B. Good Battery
C. Dead Battery

To disconnect the jumper cables from both vehicles, do the following:

1. Disconnect the black negative (–) cable from the vehicle that had the dead battery.
2. Disconnect the black negative (–) cable from the vehicle with the good battery.
3. Disconnect the red positive (+) cable from the vehicle with the good battery.
4. Disconnect the red positive (+) cable from the other vehicle.

Rear Axle

When to Check and Change Lubricant

Refer to the Maintenance Schedule to determine how often to check the lubricant and when to change it. See *Part C: Periodic Maintenance Inspections on page 6-28* and *Part A: Scheduled Maintenance Services on page 6-4*.

How to Check Lubricant

To get an accurate reading, the vehicle should be on a level surface.

If the level is below the bottom of the filler plug hole, you'll need to add some lubricant.

1. Remove the filler plug.
2. Remove the drain plug, drain the lubricant and reinstall the drain plug.
3. Add enough lubricant to raise the level to the bottom of the filler plug hole.
4. Reinstall the filler plug.

What to Use

Refer to the Maintenance Schedule to determine what kind of lubricant to use. See *Part D: Recommended Fluids and Lubricants on page 6-30*.

Four-Wheel Drive

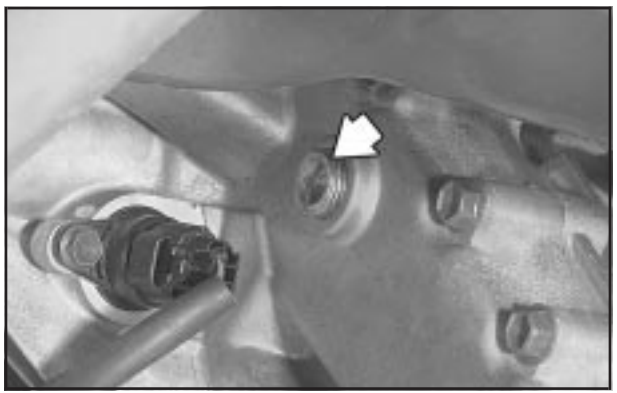
Most lubricant checks in this section also apply to four-wheel-drive vehicles. However, they have two additional systems that need lubrication.

Transfer Case

When to Check and Change Lubricant

Refer to the Maintenance Schedule to determine how often to check the lubricant and when to change it. See *Part A: Scheduled Maintenance Services on page 6-4*.

How to Check Lubricant



To get an accurate reading, the vehicle should be on a level surface.

If the level is below the bottom of the filler plug hole, you'll need to add some lubricant. Add enough lubricant to raise the level to the bottom of the filler plug hole.

What to Use

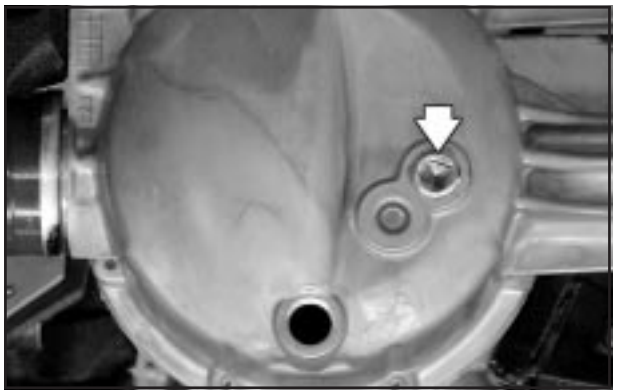
Refer to the Maintenance Schedule to determine what kind of lubricant to use. See *Part D: Recommended Fluids and Lubricants on page 6-30*.

Front Axle

When to Check and Change Lubricant

Refer to the Maintenance Schedule to determine how often to check the lubricant and when to change it. See *Part C: Periodic Maintenance Inspections on page 6-28* and *Part A: Scheduled Maintenance Services on page 6-4*.

How to Check Lubricant



To get an accurate reading, the vehicle should be on a level surface.

If the level is below the bottom of the filler plug hole, you may need to add some lubricant.

1. Remove the filler plug.
2. Remove the drain plug, drain the lubricant and reinstall the drain plug.
3. When the differential is cold, add enough lubricant to raise the level to 1/2 inch (12 mm) below the filler plug hole.

   When the differential is at operating temperature (warm), add enough lubricant to raise the level to the bottom of the filler plug hole.
4. Reinstall the filler plug.

What to Use

Refer to the Maintenance Schedule to determine what kind of lubricant to use. See *Part D: Recommended Fluids and Lubricants on page 6-30*.

Bulb Replacement

For the type of bulbs, see *Replacement Bulbs on page 5-59*. For any bulb changing procedure not listed in this section, contact your dealer.

Halogen Bulbs

⚠ CAUTION:

Halogen bulbs have pressurized gas inside and can burst if you drop or scratch the bulb. You or others could be injured. Be sure to read and follow the instructions on the bulb package.

Headlamps

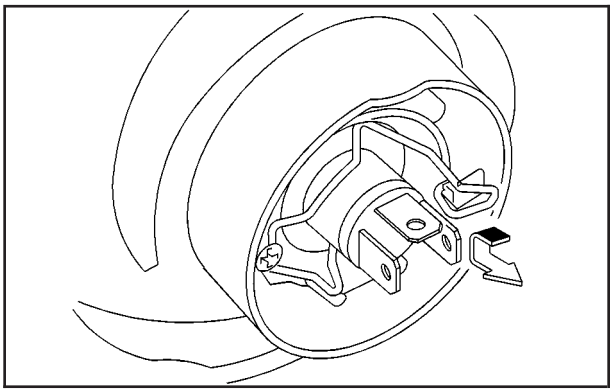
Notice: **If you use high-intensity bulbs when replacing the headlamp bulbs, you could damage your vehicle. Use only replacement bulbs recommended for your vehicle. See *Replacement Bulbs on page 5-59* for more information.**

A. Headlamp
B. Front Parking and Turn Signal Lamps

To replace a headlamp bulb, do the following:

1. Open the hood.

2. Remove the rubber cover and socket from the headlamp.



3. Release the retainer clip holding the bulb by pressing down and moving the metal retainer away from you.
4. Pull the bulb out of the fixture.
5. Reverse the steps to install a new bulb.

Front Turn Signal and Parking Lamps

To replace the parking and turn signal bulb, do the following:

1. See “Headlamps” for location.

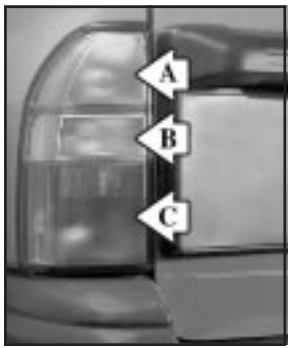
2. Locate the turn signal bulb.
3. Turn the bulb socket counterclockwise and pull it out of the lamp housing.
4. Push the bulb in, turn it counterclockwise and pull the bulb straight out of the socket.
5. Reverse the steps to install a new bulb.

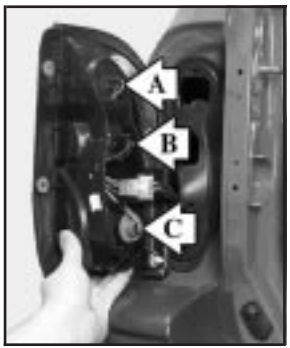
Sidemarker Lamps

To replace the sidemarker bulb, do the following:

1. Remove the two screws holding the sidemarker lamp assembly. The assembly should pull away from the vehicle.
2. Turn the socket counterclockwise and pull it out of the housing.
3. Pull the bulb out of the socket.
4. Reverse the steps to install a new bulb.

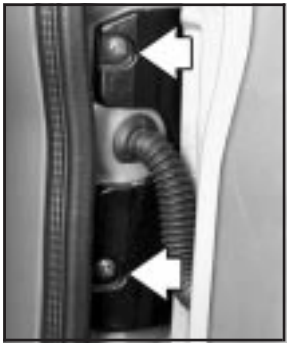
Rear Combination Lamps





A. Turn Signal Lamp
B. Back-Up Lamp
C. Brake Lamp

To remove the rear combination bulbs, do the following:



Passenger's Side

Driver's Side

1. Remove the two screws from the combination lamps. Gently pull the housing away from the vehicle.
2. Turn the bulb socket counterclockwise and pull it out of the lamp housing.
3. Pull the bulb straight out of the socket.
4. Reverse the previous steps to install a new bulb.
5. Reinstall the housing and the screws.

Replacement Bulbs

Exterior Lamp	Bulb Number
Back-up Lamp	921
Front Turn Signal and Parking	1157 NA
Headlamps (Halogen)	GM Part No. 91171148 or equivalent
Rear Hazard and Turn Signal	921
Rear Parking and Brake	GM Part No. 91174349 or equivalent
Sidemarker	194
For any bulb not listed here contact your dealer.	

Tires

Your new vehicle comes with high-quality tires made by a leading tire manufacturer. If you ever have questions about your tire warranty and where to obtain service, see your Chevrolet Warranty booklet for details.

⚠ CAUTION:

Poorly maintained and improperly used tires are dangerous.

- **Overloading your tires can cause overheating as a result of too much friction. You could have an air-out and a serious accident. See “Loading Your Vehicle” in the Index.**
- **Underinflated tires pose the same danger as overloaded tires. The resulting accident could cause serious injury. Check all tires frequently to maintain the recommended pressure. Tire pressure should be checked when your tires are cold.**
- **Overinflated tires are more likely to be cut, punctured or broken by a sudden impact — such as when you hit a pothole. Keep tires at the recommended pressure.**
- **Worn, old tires can cause accidents. If your tread is badly worn, or if your tires have been damaged, replace them.**

Inflation - Tire Pressure

The Tire-Loading Information label, which is on the driver's door lock pillar, shows the correct inflation pressures for your tires when they're cold. "Cold" means your vehicle has been sitting for at least three hours or driven no more than 1 mile (1.6 km).

Notice: **Don't let anyone tell you that underinflation or overinflation is all right. It's not. If your tires don't have enough air (underinflation), you can get the following:**

- **Too much flexing**
- **Too much heat**
- **Tire overloading**
- **Bad wear**
- **Bad handling**
- **Bad fuel economy**

If your tires have too much air (overinflation), you can get the following:

- **Unusual wear**
- **Bad handling**
- **Rough ride**
- **Needless damage from road hazards**

When to Check

Check your tires once a month or more.

Also, check the tire pressure of the spare tire.

How to Check

Use a good quality pocket-type gage to check tire pressure. You can't tell if your tires are properly inflated simply by looking at them. Radial tires may look properly inflated even when they're underinflated.

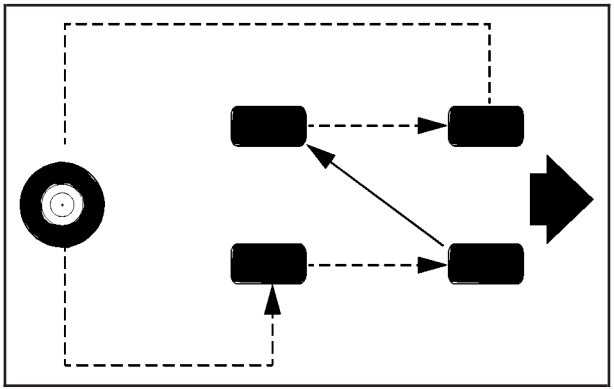
Be sure to put the valve caps back on the valve stems. They help prevent leaks by keeping out dirt and moisture.

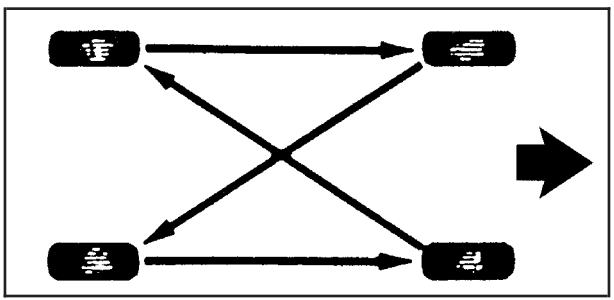
Tire Inspection and Rotation

Tires should be rotated every 6,000 to 8,000 miles (10 000 to 13 000 km).

Any time you notice unusual wear, rotate your tires as soon as possible and check wheel alignment. Also check for damaged tires or wheels. See *When It Is Time for New Tires on page 5-62* and *Wheel Replacement on page 5-64* for more information.

The purpose of regular rotation is to achieve more uniform wear for all tires on the vehicle. The first rotation is the most important. See "Part A: Scheduled Maintenance Services," in Section 6, for scheduled rotation intervals.





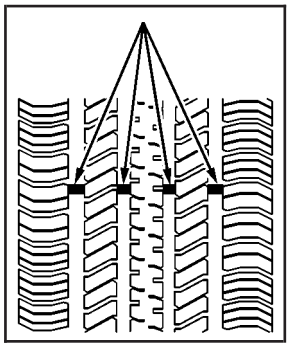
When rotating your tires, always use one of the correct rotation patterns shown here.

After the tires have been rotated, adjust the front and rear inflation pressures as shown on the Tire-Loading Information label. Make certain that all wheel nuts are properly tightened. See “Wheel Nut Torque” under *Capacities and Specifications on page 5-93*.

⚠ CAUTION:

Rust or dirt on a wheel, or on the parts to which it is fastened, can make wheel nuts become loose after a time. The wheel could come off and cause an accident. When you change a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, you can use a cloth or a paper towel to do this; but be sure to use a scraper or wire brush later, if you need to, to get all the rust or dirt off. See “Changing a Flat Tire” in the Index.

When It Is Time for New Tires



One way to tell when it's time for new tires is to check the treadwear indicators, which will appear when your tires have only 1/16 inch (1.6 mm) or less of tread remaining.

You need a new tire if any of the following statements are true:

- You can see the indicators at three or more places around the tire.
- You can see cord or fabric showing through the tire's rubber.
- The tread or sidewall is cracked, cut or snagged deep enough to show cord or fabric.
- The tire has a bump, bulge or split.
- The tire has a puncture, cut or other damage that can't be repaired well because of the size or location of the damage.

Buying New Tires

To find out what kind and size of tires you need, look at the Tire-Loading Information label.

Make sure the replacement tires are the same size, load range, speed rating and construction type (bias, bias-belted or radial) as your vehicle's original tires.

⚠ CAUTION:

Mixing tires could cause you to lose control while driving. If you mix tires of different sizes or types (radial and bias-belted tires) the vehicle may not handle properly, and you could have a crash. Using tires of different sizes may also cause damage to your vehicle. Be sure to use the same size and type tires on all wheels.

⚠ CAUTION:

If you use bias-ply tires on your vehicle, the wheel rim flanges could develop cracks after many miles of driving. A tire and/or wheel could fail suddenly, causing a crash. Use only radial-ply tires with the wheels on your vehicle.

Uniform Tire Quality Grading

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:

Treadwear 200 Traction AA Temperature A

The following information relates to the system developed by the United States National Highway Traffic Safety Administration, which grades tires by treadwear, traction and temperature performance. (This applies only to vehicles sold in the United States.) The grades are molded on the sidewalls of most passenger car tires. The Uniform Tire Quality Grading system does not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, tires with nominal rim diameters of 10 to 12 inches (25 to 30 cm), or to some limited-production tires.

While the tires available on General Motors passenger cars and light trucks may vary with respect to these grades, they must also conform to federal safety requirements and additional General Motors Tire Performance Criteria (TPC) standards.

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and a half (1.5) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

Traction – AA, A, B, C

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance. Warning: The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

Temperature – A, B, C

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

Warning: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

Wheel Alignment and Tire Balance

The wheels on your vehicle were aligned and balanced carefully at the factory to give you the longest tire life and best overall performance.

Scheduled wheel alignment and wheel balancing are not needed. However, if you notice unusual tire wear or your vehicle pulling one way or the other, the alignment may need to be reset. If you notice your vehicle vibrating when driving on a smooth road, your wheels may need to be rebalanced.

Wheel Replacement

Replace any wheel that is bent, cracked or badly rusted or corroded. If wheel nuts keep coming loose, the wheel, wheel bolts and wheel nuts should be replaced. If the wheel leaks air, replace it (except some aluminum wheels, which can sometimes be repaired). See your dealer if any of these conditions exist.

Your dealer will know the kind of wheel you need.

Each new wheel should have the same load-carrying capacity, diameter, width, offset and be mounted the same way as the one it replaces.

If you need to replace any of your wheels, wheel bolts or wheel nuts, replace them only with new GM original equipment parts. This way, you will be sure to have the right wheel, wheel bolts and wheel nuts for your vehicle.

⚠ CAUTION:

Using the wrong replacement wheels, wheel bolts or wheel nuts on your vehicle can be dangerous. It could affect the braking and handling of your vehicle, make your tires lose air and make you lose control. You could have a collision in which you or others could be injured. Always use the correct wheel, wheel bolts and wheel nuts for replacement.

Notice: **The wrong wheel can also cause problems with bearing life, brake cooling, speedometer or odometer calibration, headlamp aim, bumper height, vehicle ground clearance and tire or tire chain clearance to the body and chassis.**

See *Changing a Flat Tire on page 5-67* for more information.

Used Replacement Wheels

⚠ CAUTION:

Putting a used wheel on your vehicle is dangerous. You can't know how it's been used or how far it's been driven. It could fail suddenly and cause a crash. If you have to replace a wheel, use a new GM original equipment wheel.

Tire Chains

Notice: **Use tire chains only where legal and only when you must. Use only SAE Class ″S″ type chains that are the proper size for your tires. Install them on the tires of the drive axle (four-wheel-drive vehicles can use chains on both axles). Tighten them as tightly as possible with the ends securely fastened. Drive slowly and follow the chain manufacturer's instructions. If you can hear the chains contacting your vehicle, stop and retighten them. If the contact continues, slow down until it stops. Driving too fast or spinning the wheels with chains on will damage your vehicle.**

If a Tire Goes Flat

It's unusual for a tire to "blowout" while you're driving, especially if you maintain your tires properly. If air goes out of a tire, it's much more likely to leak out slowly. But if you should ever have a "blowout," here are a few tips about what to expect and what to do:

If a front tire fails, the flat tire will create a drag that pulls the vehicle toward that side. Take your foot off the accelerator pedal and grip the steering wheel firmly. Steer to maintain lane position, and then gently brake to a stop well out of the traffic lane.

A rear blowout, particularly on a curve, acts much like a skid and may require the same correction you'd use in a skid. In any rear blowout, remove your foot from the accelerator pedal. Get the vehicle under control by steering the way you want the vehicle to go. It may be very bumpy and noisy, but you can still steer. Gently brake to a stop, well off the road if possible.

⚠ CAUTION:

Lifting a vehicle and getting under it to do maintenance or repairs is dangerous without the appropriate safety equipment and training. The jack provided with your vehicle is designed only for changing a flat tire. If it is used for anything else, you or others could be badly injured or killed if the vehicle slips off the jack. Use the jack provided with your vehicle only for changing a flat tire.

If a tire goes flat, the next part shows how to use your jacking equipment to change a flat tire safely.

Changing a Flat Tire

If a tire goes flat, avoid further tire and wheel damage by driving slowly to a level place. Turn on your hazard warning flashers.

⚠ CAUTION:

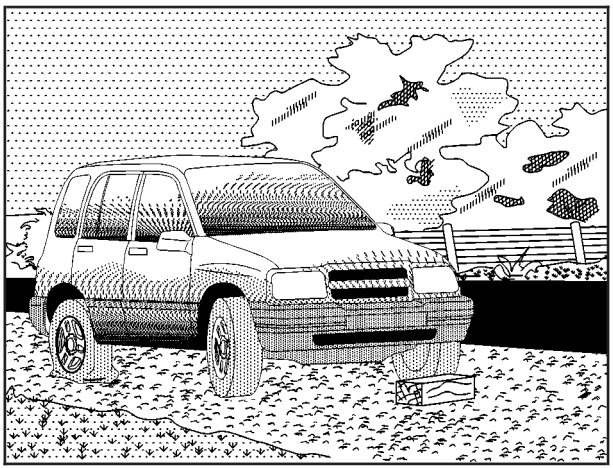
Changing a tire can cause an injury. The vehicle can slip off the jack and roll over you or other people. You and they could be badly injured. Find a level place to change your tire. To help prevent the vehicle from moving:

1. **Set the parking brake firmly.**
2. **Put an automatic transmission shift lever in PARK (P), or shift a manual transmission to FIRST (1) or REVERSE (R).**
3. **If you have a four-wheel-drive vehicle, be sure the transfer case is in a drive gear – not in NEUTRAL.**
4. **Turn off the engine. To be even more certain the vehicle won't move, you can put**

CAUTION: (Continued)

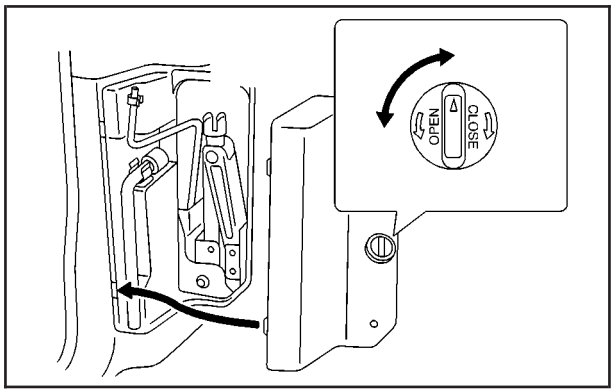
CAUTION: (Continued)

blocks at the front and rear of the tire farthest away from the one being changed. That would be the tire on the other side of the vehicle, at the opposite end.



The following steps will tell you how to use the jack and change a tire.

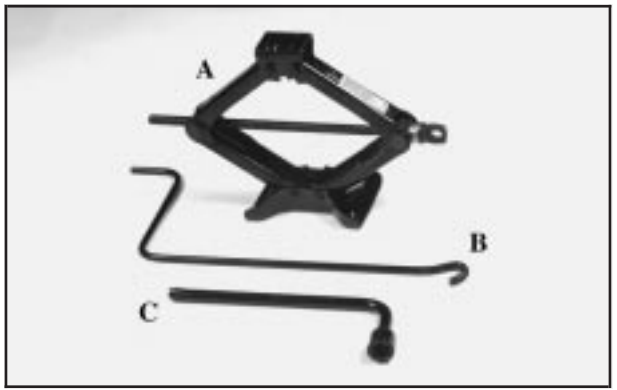
Removing the Spare Tire and Tools



The jack, wheel wrench and jack handle are stowed in the rear left corner of the luggage compartment.

1. To open the jacking tool storage compartment, turn the knob counterclockwise. Open the cover two inches and pull the entire cover towards the front of the vehicle.

2. Turn the jack screw to remove the jack from the clamps. If the screw is too tight, use the jack handle to loosen it.



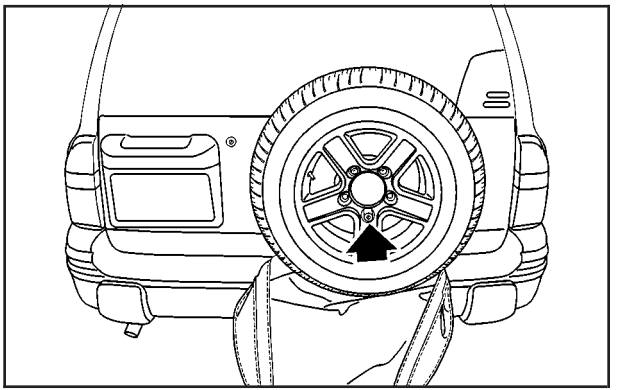
The tools you'll be using include the jack (A), jack handle (B) and wheel wrench (C).

The spare tire is mounted on your tailgate. Your vehicle may be equipped with either a soft, vinyl cover or a hard cover.

Hard Cover

3. To remove the hard cover from the spare tire, insert your key into the wheel lock and pull the wheel lock off.

4. Using the wheel wrench, remove the wheel cover nut. Gently pry the spare tire cover off the wheel.

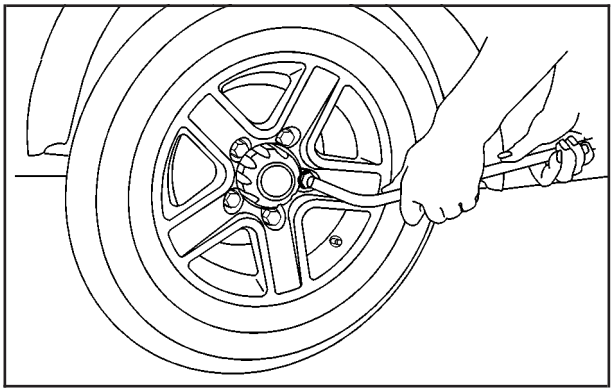


Vinyl Cover

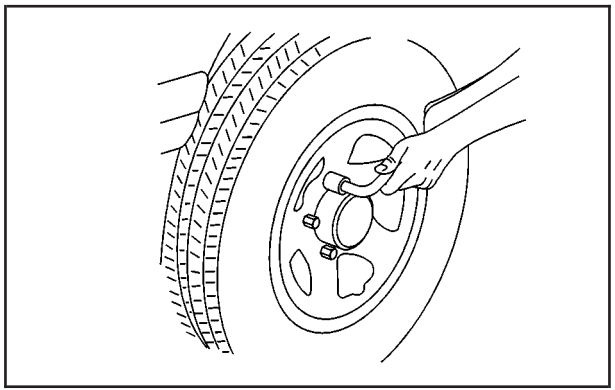
5. If your vehicle is equipped with a vinyl cover, unzip the cover to find the wheel lock. Insert the key into the wheel lock and pull it off.
6. Using the wheel wrench, remove the wheel nut under the lock.

7. Remove the remaining wheel nuts with the wheel wrench.
8. Remove the spare tire from the mounting bracket and place it near your flat tire.

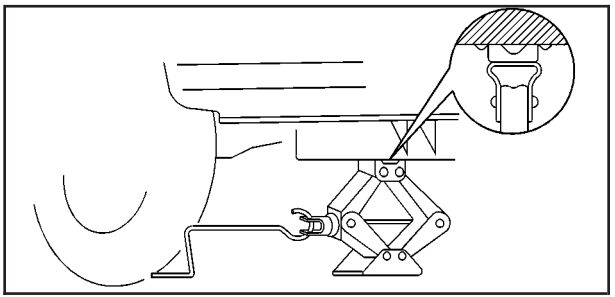
Removing the Flat Tire and Installing the Spare Tire



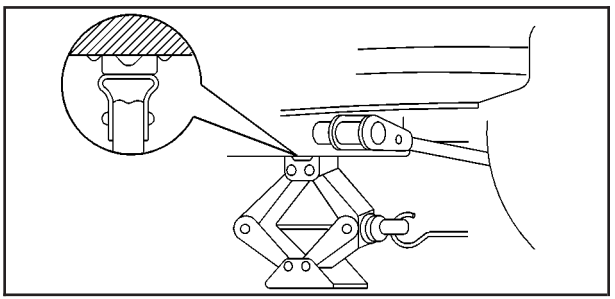
1. If your vehicle has wheel nut caps, remove them by turning the wheel wrench counterclockwise.



2. Using the wheel wrench, loosen all the wheel nuts but don't remove them yet.



Front Wheel Location



Rear Wheel Location

3. Under the vehicle near each wheel, there are knobs in the vehicle's frame. Raise the jack 2 inches (51 mm) before positioning the jack. Raise the jack lift head until it fits firmly onto the knobs nearest to the flat tire.

⚠ CAUTION:

Getting under a vehicle when it is jacked up is dangerous. If the vehicle slips off the jack you could be badly injured or killed. Never get under a vehicle when it is supported only by a jack.

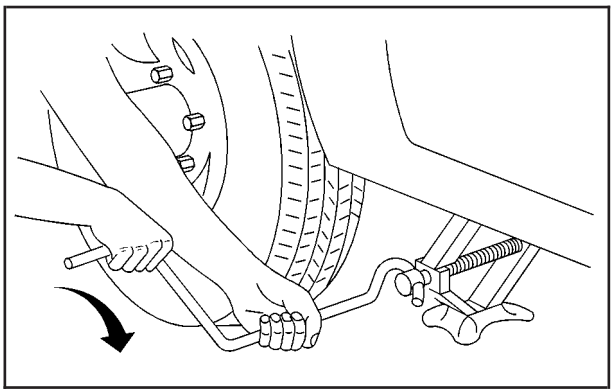
⚠ CAUTION:

Raising your vehicle with the jack improperly positioned can cause personal injury and damage to the vehicle. If you try to use the jack when it hasn't been raised at least 2 inches (51 mm), the jack may not hold up the vehicle, and you or others could be injured.

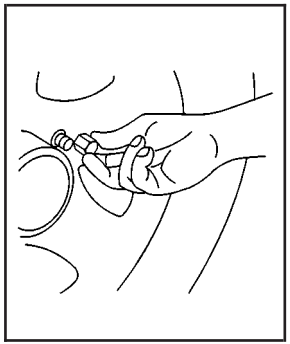
CAUTION: (Continued)

CAUTION: (Continued)

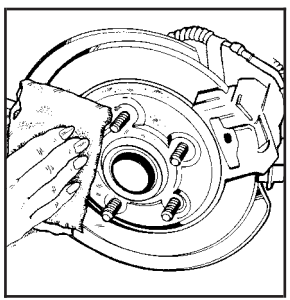
To help avoid personal injury and vehicle damage, be sure to open the jack at least 2 inches (51 mm) before you fit the lift head into the proper location.



4. Raise the vehicle by turning the jack handle clockwise. Raise the vehicle far enough off the ground so there is enough room for the spare tire to fit underneath the wheel well.



5. Remove all the wheel nuts and take off the flat tire.



6. Remove any rust or dirt from the wheel bolts, mounting surfaces and spare wheel.

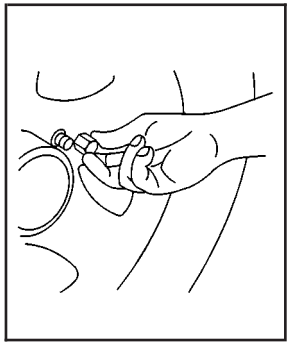
⚠ CAUTION:

Rust or dirt on the wheel, or on the parts to which it is fastened, can make the wheel nuts become loose after a time. The wheel could come off and cause an accident. When you change a wheel, remove any rust or dirt from the places where the wheel attaches to the vehicle. In an emergency, you can use a cloth or a paper towel to do this; but be sure to use a scraper or wire brush later, if you need to, to get all the rust or dirt off.

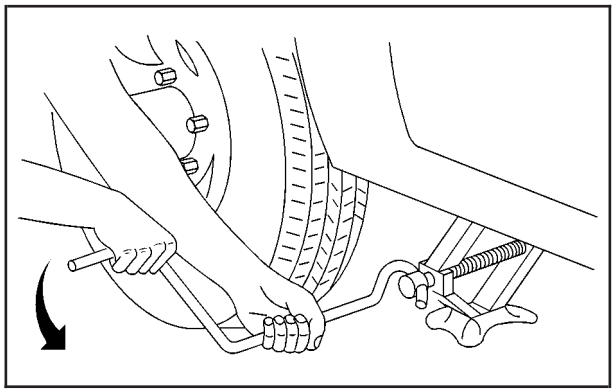
⚠ CAUTION:

Never use oil or grease on studs or nuts. If you do, the nuts might come loose. Your wheel could fall off, causing a serious accident.

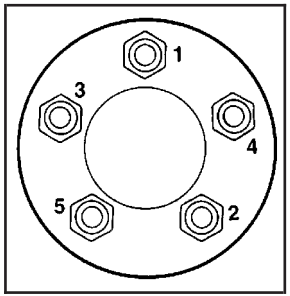
7. Place the spare on the wheel mounting surface.



8. Reinstall the wheel nuts with the cone-shaped end of the nuts toward the wheel. Tighten each nut by hand until the wheel is held against the hub.



9. Lower the vehicle by turning the jack handle counterclockwise. Lower the jack completely.



10. Tighten the wheel nuts firmly in a crisscross sequence as shown.

⚠ CAUTION:

Incorrect wheel nuts or improperly tightened wheel nuts can cause the wheel to come loose and even come off. This could lead to an accident. Be sure to use the correct wheel nuts. If you have to replace them, be sure to get new GM original equipment wheel nuts.

CAUTION: (Continued)

CAUTION: (Continued)

Stop somewhere as soon as you can and have the nuts tightened with a torque wrench to the proper torque specification. See "Capacities and Specifications" in the Index for wheel nut torque specification.

Notice: **Improperly tightened wheel nuts can lead to brake pulsation and rotor damage. To avoid expensive brake repairs, evenly tighten the wheel nuts in the proper sequence and to the proper torque specification. See "Capacities and Specifications" in the index for the wheel nut torque specification.**

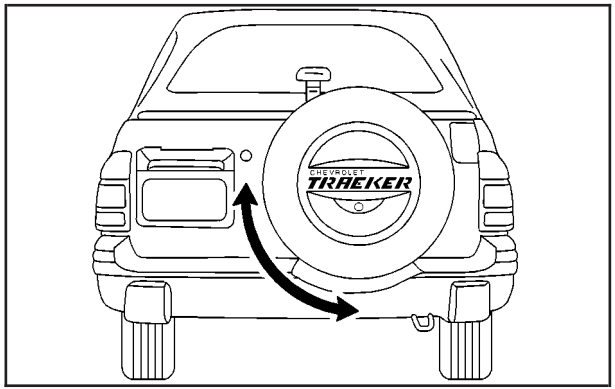
When you reinstall the full-size wheel and tire, you must also reinstall the plastic nut caps.

11. Tighten the plastic nut caps by hand. Then tighten them one half turn with the wheel wrench. Do not overtighten the nut caps or they may break.

Storing a Flat or Spare Tire and Tools

⚠ CAUTION:

Storing a jack, a tire, or other equipment in the passenger compartment of the vehicle could cause injury. In a sudden stop or collision, loose equipment could strike someone. Store all these in the proper place.



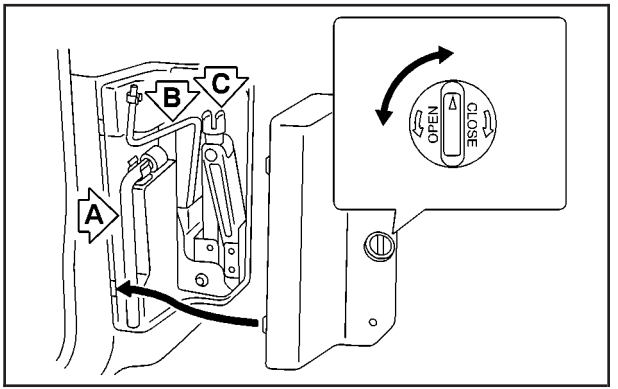
1. Store your vehicle's flat or spare tire by mounting it on the tailgate.

Notice: **Ensure that the wheel balance weight is on the lower left section of the tire in order to allow proper installation of the spare wheel cover.**

2. Put the top two wheel nuts back on with the wheel wrench.
3. Put the spare tire cover back on, if equipped. Using the wheel wrench, put the wheel cover nut back on.

4. Put the spare wheel lock back on, if equipped and lock it.
5. Put the jack, jack handle and wheel wrench back into the storage area.

To stow the jack, place it in the storage bracket and turn the shaft clockwise until the jack is securely held in place. Reinstall the trim cover by inserting the cover tabs into the slots. Push the cover closed and turn the knob clockwise to secure the cover.



A. Wrench
B. Jack Handle
C. Jack

⚠ CAUTION:

Make sure the tire is secure. Driving with the tire not properly secured could injure pedestrians or damage the vehicle.

Appearance Care

Remember, cleaning products can be hazardous. Some are toxic. Others can burst into flames if you strike a match or get them on a hot part of the vehicle. Some are dangerous if you breathe their fumes in a closed space. When you use anything from a container to clean your vehicle, be sure to follow the manufacturer's warnings and instructions. And always open your doors or windows when you are cleaning the inside.

Never use these to clean your vehicle:

- Gasoline
- Benzene
- Naphtha
- Carbon Tetrachloride
- Acetone
- Paint Thinner
- Turpentine
- Lacquer Thinner
- Nail Polish Remover

They can all be hazardous — some more than others — and they can all damage your vehicle, too.

Do not use any of these unless this manual says you can. In many uses, these will damage your vehicle:

- Alcohol
- Laundry Soap
- Bleach
- Reducing Agents

Cleaning the Inside of Your Vehicle

Use a vacuum cleaner often to get rid of dust and loose dirt. Wipe vinyl, leather, plastic and painted surfaces with a clean, damp cloth.

Cleaning Fabric/Carpet

Your dealer has cleaners for the cleaning of fabric and carpet. They will clean normal spots and stains very well.

You can get GM-approved cleaning products from your dealer. See *Vehicle Care/Appearance Materials on page 5-87*.

Here are some cleaning tips:

- Always read the instructions on the cleaner label.
- Clean up stains as soon as you can — before they set.
- Carefully scrape off any excess stain.
- Use a clean cloth or sponge, and change to a clean area often. A soft brush may be used if stains are stubborn.
- If a ring forms on fabric after spot cleaning, clean the entire area immediately or it will set.

Using Cleaner on Fabric

1. Vacuum and brush the area to remove any loose dirt.
2. Always clean a whole trim panel or section. Mask surrounding trim along stitch or welt lines.
3. Follow the directions on the container label.
4. Apply cleaner with a clean sponge. Do not saturate the material and do not rub it roughly.
5. As soon as you have cleaned the section, use a sponge to remove any excess cleaner.
6. Wipe cleaned area with a clean, water-dampened towel or cloth.
7. Wipe with a clean cloth and let dry.

Special Fabric Cleaning Problems

Stains caused by such things as catsup, coffee (black), egg, fruit, fruit juice, milk, soft drinks, vomit, urine and blood can be removed as follows:

1. Carefully scrape off excess stain, then sponge the soiled area with cool water.
2. If a stain remains, follow the cleaning instructions described earlier.

3. If an odor lingers after cleaning vomit or urine, treat the area with a water and baking soda solution: 1 teaspoon (5 ml) of baking soda to 1 cup (250 ml) of lukewarm water.
4. Let dry.

Stains caused by candy, ice cream, mayonnaise, chili sauce and unknown stains can be removed as follows:

1. Carefully scrape off excess stain.
2. Clean with cool water and allow to dry completely.
3. If a stain remains, follow the cleaner instructions described earlier.

Cleaning Vinyl

Use warm water and a clean cloth.

- Rub with a clean, damp cloth to remove dirt. You may have to do this more than once.
- Things like tar, asphalt and shoe polish will stain if you do not get them off quickly. Use a clean cloth and vinyl cleaner. See your dealer for this product.

Cleaning Leather

Use a soft cloth with lukewarm water and a mild soap or saddle soap and wipe dry with a soft cloth. Then, let the leather dry naturally. Do not use heat to dry.

- For stubborn stains, use a leather cleaner.
- *Never* use oils, varnishes, solvent-based or abrasive cleaners, furniture polish or shoe polish on leather.
- Soiled or stained leather should be cleaned immediately. If dirt is allowed to work into the finish, it can harm the leather.

Cleaning the Top of the Instrument Panel

Use only mild soap and water to clean the top surfaces of the instrument panel. Sprays containing silicones or waxes may cause annoying reflections in the windshield and even make it difficult to see through the windshield under certain conditions.

Cleaning Interior Plastic Components

Use only a mild soap and water solution on a soft cloth or sponge. Commercial cleaners may affect the surface finish.

Cleaning Glass Surfaces

Glass should be cleaned often. GM Glass Cleaner or a liquid household glass cleaner will remove normal tobacco smoke and dust films on interior glass. See *Vehicle Care/Appearance Materials on page 5-87*.

Notice: **If you use abrasive cleaners when cleaning glass surfaces on your vehicle, you could scratch the glass and/or cause damage to the rear window defogger and the integrated radio antenna. When cleaning the glass on your vehicle, use only a soft cloth and glass cleaner.**

Care of Safety Belts

Keep belts clean and dry.

> **⚠ CAUTION:**
>
> **Do not bleach or dye safety belts. If you do, it may severely weaken them. In a crash, they might not be able to provide adequate protection. Clean safety belts only with mild soap and lukewarm water.**

Weatherstrips

Silicone grease on weatherstrips will make them last longer, seal better, and not stick or squeak. Apply silicone grease with a clean cloth at least every six months. During very cold, damp weather more frequent application may be required. See *Part D: Recommended Fluids and Lubricants on page 6-30*.

Cleaning the Outside of Your Vehicle

The paint finish on your vehicle provides beauty, depth of color, gloss retention and durability.

Washing Your Vehicle

The best way to preserve your vehicle's finish is to keep it clean by washing it often with lukewarm or cold water.

Don't wash your vehicle in the direct rays of the sun. Use a car washing soap. Don't use strong soaps or chemical detergents. Be sure to rinse the vehicle well, removing all soap residue completely. You can get GM-approved cleaning products from your dealer. See *Vehicle Care/Appearance Materials on page 5-87*.

Don’t use cleaning agents that are petroleum based, or that contain acid or abrasives. All cleaning agents should be flushed promptly and not allowed to dry on the surface, or they could stain. Dry the finish with a soft, clean chamois or an all-cotton towel to avoid surface scratches and water spotting.

High pressure car washes may cause water to enter your vehicle.

Cleaning Exterior Lamps/Lenses

Use only lukewarm or cold water, a soft cloth and a car washing soap to clean exterior lamps and lenses. Follow instructions under “Washing Your Vehicle.”

Finish Care

Occasional waxing or mild polishing of your vehicle by hand may be necessary to remove residue from the paint finish. You can get GM-approved cleaning products from your dealer. See *Vehicle Care/Appearance Materials on page 5-87*.

If your vehicle has a “basecoat/clearcoat” paint finish. The clearcoat gives more depth and gloss to the colored basecoat. Always use waxes and polishes that are non-abrasive and made for a basecoat/clearcoat paint finish.

Notice: **Machine compounding or aggressive polishing on a basecoat/clearcoat paint finish may damage it. Use only non-abrasive waxes and polishes that are made for a basecoat/clearcoat paint finish on your vehicle.**

Foreign materials such as calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys, etc., can damage your vehicle’s finish if they remain on painted surfaces. Wash the vehicle as soon as possible. If necessary, use non-abrasive cleaners that are marked safe for painted surfaces to remove foreign matter.

Exterior painted surfaces are subject to aging, weather and chemical fallout that can take their toll over a period of years. You can help to keep the paint finish looking new by keeping your vehicle garaged or covered whenever possible.

Cleaning the Windshield, Backglass and Wiper Blades

If the windshield is not clear after using the windshield washer, or if the wiper blade chatters when running, wax, sap or other material may be on the blade or windshield.

Clean the outside of the windshield with a full-strength glass cleaning liquid. The windshield is clean if beads do not form when you rinse it with water.

Grime from the windshield will stick to the wiper blades and affect their performance. Clean the blade by wiping vigorously with a cloth soaked in full-strength windshield washer solvent. Then rinse the blade with water.

Check the wiper blades and clean them as necessary; replace blades that look worn.

Special Care for Canvas Top and Plastic Windows

Your canvas top should be cleaned often. If you use an automatic car wash, use one with water jets and hanging cloths. High pressure car washes may cause water to enter your vehicle.

When you hand wash the top, do it in partial shade. Use a mild soap, lukewarm water and a soft sponge.
A chamois or cloth may leave lint on the top, and a brush can chafe the threads in the top fabric. Don't use detergents, harsh cleaners, solvent or bleaching agents.

Wet the entire vehicle and wash top evenly to avoid spots or rings. Let the soap remain on the fabric for a few minutes. When the top is really dirty, use mild foam-type cleaner. Thoroughly rinse the entire vehicle, then let the top dry in direct sunlight.

To protect the canvas top:

- After you wash the vehicle, make sure the top is completely dry before you open or remove it.
- Don't get any vinyl cleaner on the vehicle's painted finish; it could leave streaks.
- If you decide to go through an automatic car wash, ask the manager if the equipment could damage your top.

The plastic windows are pliable and can be scratched if you don't take these precautions when you clean them:

- Wipe off dust with a soft cotton cloth moistened with clean, cool or lukewarm water. Don't use a "dry" cloth. Wipe in one direction only, not back and forth.
- To remove frost, snow or ice, use lukewarm water. Don't use a scraper or any de-icing fluids.
- Wash the windows with a soft cloth and clean, cool or lukewarm water. Never use a dry cloth, hot water, strong soap or detergent, solvents or harsh cleaning agents. Rinse thoroughly and wipe with a slightly moist soft, clean cloth.
- Don't put any labels, stickers or tape on windows. It's hard to remove adhesives left on the windows when such items are removed. If a sticker or label must be removed, remove any adhesive left on the window while the adhesive is still soft and sticky. Press on a new sticker or piece of tape and then lift it off again; keep doing this until all the adhesives lifts off with the sticker or tape.

Cleaning Aluminum Wheels

Keep your wheels clean using a soft clean cloth with mild soap and water. Rinse with clean water. After rinsing thoroughly, dry with a soft clean towel. A wax may then be applied.

The surface of these wheels is similar to the painted surface of your vehicle. Don't use strong soaps, chemicals, abrasive polishes, abrasive cleaners, cleaners with acid, or abrasive cleaning brushes on them because you could damage the surface. Do not use chrome polish on aluminum wheels.

Don't take your vehicle through an automatic car wash that has silicone carbide tire cleaning brushes. These brushes can also damage the surface of these wheels.

Cleaning Tires

To clean your tires, use a stiff brush with tire cleaner.

Notice: **Using petroleum-based tire dressing products on your vehicle may damage the paint finish and/or tires. When applying a tire dressing, always wipe off any overspray from all painted surfaces on your vehicle.**

Sheet Metal Damage

If your vehicle is damaged and requires sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to parts repaired or replaced to restore corrosion protection.

Original manufacturer replacement parts will provide the corrosion protection while maintaining the warranty.

Finish Damage

Any stone chips, fractures or deep scratches in the finish should be repaired right away. Bare metal will corrode quickly and may develop into major repair expense.

Minor chips and scratches can be repaired with touch-up materials avaliable from your dealer. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

Underbody Maintenance

Chemicals used for ice and snow removal and dust control can collect on the underbody. If these are not removed, corrosion and rust can develop on the underbody parts such as fuel lines, frame, floor pan and exhaust system even though they have corrosion protection.

At least every spring, flush these materials from the underbody with plain water. Clean any areas where mud and debris can collect. Dirt packed in close areas of the frame should be loosened before being flushed. Your dealer or an underbody car washing system can do this for you.

Chemical Paint Spotting

Some weather and atmospheric conditions can create a chemical fallout. Airborne pollutants can fall upon and attack painted surfaces on your vehicle. This damage can take two forms: blotchy, ring-shaped discolorations, and small, irregular dark spots etched into the paint surface.

Although no defect in the paint job causes this, GM will repair, at no charge to the owner, the surfaces of new vehicles damaged by this fallout condition within 12 months or 12,000 miles (20 000 km) of purchase, whichever occurs first.

Vehicle Care/Appearance Materials

See your GM dealer for more information on purchasing the following products.

Vehicle Care/Appearance Materials

Description	Usage
Polishing Cloth Wax-Treated	Interior and exterior polishing cloth.
Tar and Road Oil Remover	Removes tar, road oil and asphalt.
Chrome Cleaner and Polish	Use on chrome or stainless steel.
White Sidewall Tire Cleaner	Removes soil and black marks from whitewalls.
Vinyl Cleaner	Cleans vinyl tops, upholstery and convertible tops.
Glass Cleaner	Removes dirt, grime, smoke and fingerprints.
Chrome and Wire Wheel Cleaner	Removes dirt and grime from chrome wheels and wire wheel covers.
Finish Enhancer	Removes dust, fingerprints, and surface contaminants. Spray on wipe off.

Vehicle Care/Appearance Materials (cont'd)

Description	Usage
Swirl Remover Polish	Removes swirl marks, fine scratches and other light surface contamination.
Cleaner Wax	Removes light scratches and protects finish.
Foaming Tire Shine Low Gloss	Cleans, shines and protects in one easy step, no wiping necessary.
Wash Wax Concentrate	Medium foaming shampoo. Cleans and lightly waxes. Biodegradable and phosphate free.
Spot Lifter	Quickly and easily removes spots and stains from carpets, vinyl and cloth upholstery.
Odor Eliminator	Odorless spray odor eliminator used on fabrics, vinyl, leather and carpet.
See your General Motors parts department for these products. See *Part D: Recommended Fluids and Lubricants on page 6-30*.	

Vehicle Identification

Vehicle Identification Number (VIN)

This is the legal identifier for your vehicle. It appears on a plate in the front corner of the instrument panel, on the driver's side. You can see it if you look through the windshield from outside your vehicle. The VIN also appears on the Vehicle Certification and Service Parts labels and the certificates of title and registration.

Engine Identification

The 8th character in your VIN is the engine code. This code will help you identify your engine, specifications and replacement parts.

Service Parts Identification Label

You'll find this label inside the glove box on the door. It's very helpful if you ever need to order parts. On this label is:

- your VIN,
- the model designation,
- paint information and
- a list of all production options and special equipment.

Be sure that this label is not removed from the vehicle.

Electrical System

Add-On Electrical Equipment

Notice: **Don't add anything electrical to your vehicle unless you check with your dealer first. Some electrical equipment can damage your vehicle and the damage wouldn't be covered by your warranty. Some add-on electrical equipment can keep other components from working as they should.**

Your vehicle has an air bag system. Before attempting to add anything electrical to your vehicle, see *Servicing Your Air Bag-Equipped Vehicle on page 1-60*.

Fuses and Circuit Breakers

The wiring circuits in your vehicle are protected from short circuits by fuses, circuit breakers and thermal links in the wiring itself. This greatly reduces the chance of fires caused by electrical problems.

Look at the metallic band inside the fuse. If the band is broken or melted, replace the fuse. Be sure you replace a bad fuse with a new one of the correct size.

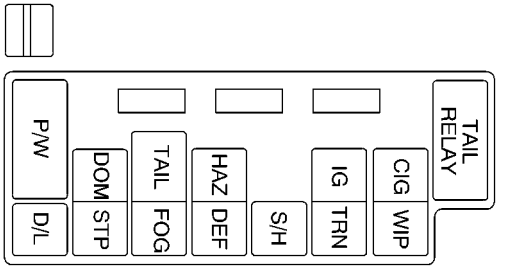
If you ever have a problem on the road and don't have a spare fuse, you can borrow one. Just pick some feature of your vehicle that you can get along without — like the radio or cigarette lighter — and use its fuse, if it is the size you need. Replace it as soon as you can.

Before replacing a fuse, turn every vehicle electrical switch off.

There are two fuse blocks in your vehicle: the instrument panel fuse block and the engine compartment fuse block.

Instrument Panel Fuse Block

This fuse block is located under the driver's side of the instrument panel. The fuses here protect each separate circuit including headlamps. There are spare fuses inside the fuse box. If you have electrical failure, check here first.



Fuses	Usage
P/W	Power Windows
DOM	Dome Light, Radio Memory
TAIL	License Plate Light, Clearance/ Marker Lights, Instrument Panel Illumination, Warning Tone
HAZ	Hazard Lights, Turn Signal
IG	Oxygen Sensor Heater, Cruise Control, Ignition Coil, Meter, G Sensor

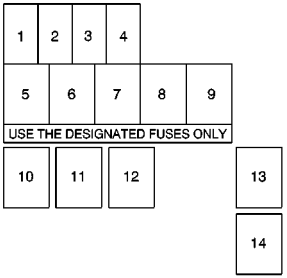
Fuses	Usage
CIG	Cigar/Cigarette Lighter, Radio, Power Mirror
D/L	Door Locks
STP	Brake Light, Horn, Center High-Mounted Stop Lamp, Cruise Control
FOG	Not Used
DEF	Rear Window Defogger, DRL, Heater, Air Conditioning
S/H	Not Used
TRN	Turn Signal, Back-Up Light, Hazard Lights
WIP	Windshield Wiper/Washer, Rear Window Wiper/Washer

Fuses for the air bags and the heater/air conditioning system are located next to the instrument panel fuse block.

Engine Compartment Fuse Block

The engine compartment fuse block is located in the engine compartment on the passenger's side of the vehicle and protects all electrical loads. See *Engine Compartment Overview on page 5-12* for more information on location.

For access to the main fuses, pull off the cover.



Fuses/Relays	Usage
1	Accessory Power Outlet
2	Electronic Fuel Injection System
3	Right Headlamp
4	Left Headlamp, High-Beam Indicator
5	Heater

Fuses/Relays	Usage
6	Hazard Lamps, Rear Combination Lamps, Dome Light, Horn
7	Cigar Lighter, Radio, I.G., Meter, Wiper, Washer, Rear Defroster, Turn Signals, Back-Up Lamps
8	Anti-Lock Brake System
9	All Electrical Loads
10	Shift Lock (Relay)
11 (2.5L Engine Only)	Horn (Relay)
12	Air Conditioning Compressor (Relay)
13	Air Conditioning Condenser Fan (Relay)
14	Air Conditioning

Capacities and Specifications

The following approximate capacities are given in English and metric conversions.

Capacities and Specifications

Application	Capacities	
	English	Metric
Air Conditioning Refrigerant R134a and Polyalkylene Glycol (PAG) refrigerant oil with dye	0.9 lbs.	0.4 kg
Automatic Transmission Drain and Refill	2.6 quarts	2.5 L*
Cooling System 2.0L Engine 2.5L Engine	 6.9 quarts 8.5 quarts	 6.5 L 8.0 L
Differential Front Rear	 1.1 quarts 2.3 quarts	 1.0 L* 2.2 L*
Engine Oil with Filter 2.0L Engine 2.5L Engine	 5.5 quarts 5.8 quarts	 5.2 L** 5.5 L**
Fuel Tank Two-Door Convertible Four-Door Hardtop	 14.8 gallons 16.9 gallons	 56 L 64 L

Capacities and Specifications (cont'd)

Application	Capacities	
	English	Metric
Manual Transmission Four-Wheel Drive Two-Wheel Drive	 1.6 quarts 2.0 quarts	 1.5 L* 1.9 L*
Transfer Case	1.8 quarts	1.7 L
Wheels and Tires Wheel Nut Torque Plastic Wheel Nut Cap Torque	73 lb-ft Tighten by hand plus one half turn with wheel wrench	100 N•m

*Recheck fluid level after filling. See *Automatic Transmission Fluid on page 5-23* or *Manual Transmission Fluid on page 5-26*.
**When changing the oil filter, additional oil may be needed. Recheck the oil level after filling. See *Engine Oil on page 5-16*.

Engine Specifications

Engine	VIN Code	Transmission	Spark Plug Gap	Firing Order
2.0L L4	C	Automatic and Manual	0.043 inch (1.1 mm)	1–3–4–2
2.5L V6	4	Automatic	0.043 inch (1.1 mm)	1–6–5–4–3–2

Normal Maintenance Replacement Parts

Part	GM Part Number
Engine Air Cleaner/Filter	30025009 or equivalent
Engine Oil Filter 2.0L Engine 2.5L Engine	 91173772 or equivalent 91176162 or equivalent
Passenger Compartment Air Filters	91175923 or equivalent
PCV Valve 2.0L Engine 2.5L Engine	 91174516 or equivalent 91176183 or equivalent
Remote Keyless Entry Transmitter Battery	3-volt CR2032 or equivalent
Spark Plugs	91176020 (NGK IFR5J11/Iridium plug), 91173854 (NGK BKR6E11/Nickel plug) or 91173855 (DENSO K20PR-U11/Nickel plug)

NOTES

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Maintenance Schedule

Introduction

Important: Keep engine oil at the proper level and change as recommended.

Have you purchased the GM Protection Plan? The Plan supplements your new vehicle warranties. See your Warranty and Owner Assistance booklet or your dealer for details.

Your Vehicle and the Environment

Proper vehicle maintenance not only helps to keep your vehicle in good working condition, but also helps the environment. Improper vehicle maintenance can even affect the quality of the air we breathe. Improper fluid levels or the wrong tire inflation can increase the level of emissions from your vehicle. To help protect our environment, and to keep your vehicle in good condition, be sure to maintain your vehicle properly.

Maintenance Requirements

Maintenance intervals, checks, inspections and recommended fluids and lubricants as prescribed in this manual are necessary to keep your vehicle in good working condition. Any damage caused by failure to follow scheduled maintenance may not be covered by warranty.

How This Section is Organized

This maintenance schedule is divided into five parts:

“Part A: Scheduled Maintenance Services” explains what to have done and how often. Some of these services can be complex, so unless you are technically qualified and have the necessary equipment, you should let your GM dealer’s service department do these jobs.

Your GM dealer has GM-trained and supported service people that will perform the work using genuine GM parts.

⚠ CAUTION:

Performing maintenance work on a vehicle can be dangerous. In trying to do some jobs, you can be seriously injured. Do your own maintenance work only if you have the required know-how and the proper tools and equipment for the job. If you have any doubt, have a qualified technician do the work.

If you want to get the service information, see *Service Publications Ordering Information on page 7-11*.

“Part B: Owner Checks and Services” tells you what should be checked and when. It also explains what you can easily do to help keep your vehicle in good condition.

“Part C: Periodic Maintenance Inspections” explains important inspections that your dealer’s service department can perform for you.

“Part D: Recommended Fluids and Lubricants” lists some recommended products necessary to help keep your vehicle properly maintained. These products, or their equivalents, should be used whether you do the work yourself or have it done.

“Part E: Maintenance Record” is a place for you to record and keep track of the maintenance performed on your vehicle. Keep your maintenance receipts. They may be needed to qualify your vehicle for warranty repairs.

Part A: Scheduled Maintenance Services

In this part are scheduled maintenance services which are to be performed at the mileage intervals specified.

Using Your Maintenance Schedule

We at General Motors want to keep your vehicle in good working condition. But we don't know exactly how you'll drive it. You may drive short distances only a few times a week. Or you may drive long distances all the time in very hot, dusty weather. You may use your vehicle in making deliveries. Or you may drive it to work, to do errands or in many other ways.

Because of the different ways people use their vehicles, maintenance needs may vary. You may need more frequent checks and replacements. So please read the following and note how you drive. If you have questions on how to keep your vehicle in good condition, see your dealer.

This part tells you the maintenance services you should have done and when to schedule them.

When you go to your dealer for your service needs, you'll know that GM-trained and supported service people will perform the work using genuine GM parts.

The proper fluids and lubricants to use are listed in Part D. Make sure whoever services your vehicle uses these. All parts should be replaced and all necessary repairs done before you or anyone else drives the vehicle.

These schedules are for vehicles that:

- carry passengers and cargo within recommended limits. You will find these on your vehicle's Tire-Loading Information label. See *Loading Your Vehicle on page 4-51*.
- are driven on reasonable road surfaces within legal driving limits.
- are driven off-road in the recommended manner. See *Off-Road Driving with Your Four-Wheel-Drive Vehicle on page 4-16*.
- use the recommended fuel. See *Gasoline Octane on page 5-4*.

Selecting the Right Schedule

First you'll need to decide which of the two schedules is right for your vehicle. Here's how to decide which schedule to follow:

Short Trip/City Definition

Follow the Short Trip/City Scheduled Maintenance if any one of these conditions is true for your vehicle:

- Most trips are less than 5 miles (8 km). This is particularly important when outside temperatures are below freezing.
- Most trips include extensive idling (such as frequent driving in stop-and-go traffic).
- You frequently tow a trailer or use a carrier on top of your vehicle.
- If the vehicle is used for delivery service, police, taxi or other commercial application.

One of the reasons you should follow this schedule if you operate your vehicle under any of these conditions is that these conditions cause engine oil to break down sooner.

Short Trip/City Intervals

Every 3,000 Miles (5 000 km): Engine Oil and Filter Change (or 3 months, whichever occurs first).

Every 6,000 Miles (10 000 km): Passenger Compartment Air Filter Inspection (If Equipped). Tire Rotation.

Every 15,000 Miles (25 000 km): Engine Air Cleaner Filter Inspection. Automatic Transmission Service (severe conditions only). Manual Transmission Fluid Change. Transfer Case Fluid Change. Differential Fluid Change. Propeller Shafts and U-Joints Inspection (or every 15 months, whichever occurs first).

Every 30,000 Miles (50 000 km): Engine Air Cleaner Filter Replacement. Air Filter Replacement (If Equipped). Ignition Coil Plug Cap Inspection (or every 30 months, whichever occurs first). Engine Accessory Drive Belt Inspection (or every 30 months, whichever occurs first). Cooling System Service (or every 30 months, whichever occurs first). Fuel Tank, Cap, and Lines Inspection. Fuel Filter Replacement (or every 30 months, whichever occurs first).

Every 45,000 Miles (75 000 km): Automatic Transmission Fluid Hose Inspection (or every 45 months, whichever occurs first).

Every 60,000 Miles (100 000 km): Fuel Tank Cap Gasket Replacement. Emission System Hoses Inspection. Brake Fluid Service. Spark Plug Replacement.

Every 100,000 Miles (166 000 km): Automatic Transmission Service (normal conditions).

Every 120 000 Miles (200 000 km): Evaporative Emissions Canister and Air Suction Filter Replacement (or every 120 months, whichever occurs first). Engine Accessory Drive Belt Replacement (or every 120 months, whichever occurs first).

These intervals only summarize maintenance services. Be sure to follow the complete scheduled maintenance on the following pages.

Long Trip/Highway Definition

Follow this scheduled maintenance *only* if none of the conditions from the Short Trip/City Scheduled Maintenance are true. Do not use this schedule if the vehicle is used for trailer towing, driven in a dusty area or used off paved roads. Use the Short Trip/City schedule for these conditions.

Driving a vehicle with a fully warmed engine under highway conditions will cause engine oil to break down slower.

Long Trip/Highway Intervals

Every 7,500 Miles (12 500 km): Engine Oil and Filter Change (or every 7.5 months, whichever occurs first). Tire Rotation.

Every 15,000 Miles (25 000 km): Engine Air Cleaner Filter Inspection. Automatic Transmission Service (severe conditions only). Passenger Compartment Air Filter Inspection (If Equipped). Propeller Shafts and U-Joints Inspection (or every 15 months, whichever occurs first).

Every 30,000 Miles (50 000 km): Engine Accessory Drive Belt Inspection (or every 30 months, whichever occurs first). Cooling System Service (or every 30 months, whichever occurs first). Fuel Tank, Cap and Lines Inspection. Engine Air Cleaner Filter Replacement. Passenger Compartment Air Filter Replacement (If Equipped). Ignition Coil Plug Cap Inspection (or every 30 months, whichever occurs first). Manual Transmission Fluid Change. Transfer Case Fluid Change. Differential Fluid Change. Fuel Filter Replacement (or every 30 months, whichever occurs first).

Every 45,000 Miles (75 000 km): Automatic Transmission Fluid Hose Inspection (or every 45 months, whichever occurs first).

Every 60,000 Miles (100 000 km): Fuel Tank Cap Gasket Replacement. Emission System Hoses Inspection. Spark Plug Replacement. Brake Fluid Service.

Every 100,000 Miles (166 000 km): Automatic Transmission Service (normal conditions).

Every 120,000 Miles (200 000 km): Evaporative Emissions Canister and Air Suction Filter Replacement (or every 120 months, whichever occurs first).

These intervals only summarize maintenance services. Be sure to follow the complete scheduled maintenance on the following pages.

Short Trip/City Scheduled Maintenance

The services shown in this schedule up to 100,000 miles (166 000 km) should be repeated after 100,000 miles (166 000 km) at the same intervals for the life of this vehicle. The service shown at 120,000 miles (200 000 km) should be repeated at the same interval after 120,000 miles (200 000 km) for the life of this vehicle.

See *Part B: Owner Checks and Services on page 6-24* and *Part C: Periodic Maintenance Inspections on page 6-28*.

Footnotes

† *The U.S. Environmental Protection Agency or the California Air Resources Board has determined that the failure to perform this maintenance item will not nullify the emission warranty or limit recall liability prior to the completion of the vehicle's useful life. We, however, urge that all recommended maintenance services be performed at the indicated intervals and the maintenance be recorded.*

+*A good time to check your brakes is during tire rotation. See Brake System Inspection on page 6-29*.

3,000 Miles (5 000 km)

❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

6,000 Miles (10 000 km)

❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

❑ If Equipped: Inspect passenger compartment air filters.

❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

9,000 Miles (15 000 km)

❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

12,000 Miles (20 000 km)

❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

❑ If Equipped: Inspect passenger compartment air filters.

❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

15,000 Miles (25 000 km)

❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

❑ Inspect engine air cleaner filter. If necessary, replace the filter. If vehicle is driven in dusty/dirty conditions, inspect filter at every engine oil change. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service. (See footnote †.)*

❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:

- In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
- In hilly or mountainous terrain.
- When doing frequent trailer towing.
- Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

❑ Change manual transmission fluid.

❑ Change transfer case fluid.

- ❑ Change differential fluid.
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

18,000 Miles (30 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

21,000 Miles (35 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

24,000 Miles (40 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

27,000 Miles (45 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

30,000 Miles (50 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Replace passenger compartment air filters.
- ❑ Inspect fuel tank, cap and lines for damage or leaks. Inspect fuel cap gasket for any damage. Replace parts as needed. *An Emission Control Service. (See footnote †.)*
- ❑ Inspect engine accessory drive belts (or every 30 months, whichever occurs first). *An Emission Control Service.*
- ❑ Drain, flush and refill cooling system (or every 30 months, whichever occurs first). See *Engine Coolant on page 5-28* for what to use. Inspect hoses. Clean radiator, condenser, pressure cap and neck. Pressure test the cooling system and pressure cap. *An Emission Control Service. (See footnote †.)*
- ❑ Inspect ignition coil plug cap (or every 30 months, whichever occurs first). *An Emission Control Service. (See footnote †.)*

- ❑ Replace engine air cleaner filter. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service.*
- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - − In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - − In hilly or mountainous terrain.
  - − When doing frequent trailer towing.
  - − Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*
- ❑ Change manual transmission fluid.
- ❑ Change transfer case fluid.
- ❑ Change differential fluid.
- ❑ Replace fuel filter (or every 30 months, whichever occurs first, or sooner if filter is clogged). *An Emission Control Service. (See footnote †.)*
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

33,000 Miles (55 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

36,000 Miles (60 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

39,000 Miles (65 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

42,000 Miles (70 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

45,000 Miles (75 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ Inspect automatic transmission fluid hose (or every 45 months, whichever occurs first).
- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - − In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - − In hilly or mountainous terrain.
  - − When doing frequent trailer towing.
  - − Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Inspect engine air cleaner filter. If necessary, replace the filter. If vehicle is driven in dusty/dirty conditions, inspect filter at every engine oil change. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service. (See footnote †.)*
- ❑ Change manual transmission fluid.
- ❑ Change transfer case fluid.
- ❑ Change differential fluid.
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

48,000 Miles (80 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

51,000 Miles (85 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

54,000 Miles (90 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

57,000 Miles (95 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

60,000 Miles (100 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Replace passenger compartment air filters.
- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - − In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - − In hilly or mountainous terrain.
  - − When doing frequent trailer towing.
  - − Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Inspect engine accessory drive belts (or every 30 months, whichever occurs first). *An Emission Control Service.*
- ❑ Drain, flush and refill cooling system (or every 30 months, whichever occurs first). See *Engine Coolant on page 5-28* for what to use. Inspect hoses. Clean radiator, condenser, pressure cap and neck. Pressure test the cooling system and pressure cap. *An Emission Control Service. (See footnote †.)*
- ❑ Replace spark plugs. *An Emission Control Service.*
- ❑ Inspect ignition coil plug cap (or every 30 months, whichever occurs first). *An Emission Control Service.*
- ❑ Drain, refill and bleed the brake system.
- ❑ Inspect fuel tank, cap and lines for damage or leaks. Inspect fuel cap gasket for any damage. Replace parts as needed. *An Emission Control Service. (See footnote †.)*

- ❑ Replace engine air cleaner filter. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service.*
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*
- ❑ Replace fuel filter (or every 30 months, whichever occurs first). *An Emission Control Service. (See footnote †.)*
- ❑ Change manual transmission fluid.
- ❑ Change transfer case fluid.
- ❑ Change differential fluid.
- ❑ Inspect emission system hoses and replace as necessary. *An Emission Control Service. (See footnote †.)*
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

63,000 Miles (105 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

66,000 Miles (110 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

69,000 Miles (115 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

72,000 Miles (120 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

75,000 Miles (125 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - − In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - − In hilly or mountainous terrain.
  - − When doing frequent trailer towing.
  - − Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Inspect engine air cleaner filter. If necessary, replace the filter. If vehicle is driven in dusty/dirty conditions, inspect filter at every engine oil change. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service. (See footnote †.)*
- ❑ Change manual transmission fluid.
- ❑ Change transfer case fluid.
- ❑ Change differential fluid.
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

78,000 Miles (130 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

81,000 Miles (135 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

84,000 Miles (140 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

87,000 Miles (145 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

90,000 Miles (150 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Replace passenger compartment air filters.
- ❑ Inspect automatic transmission fluid hose (or every 45 months, whichever occurs first).
- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - − In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - − In hilly or mountainous terrain.
  - − When doing frequent trailer towing.
  - − Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Inspect engine accessory drive belts (or every 30 months, whichever occurs first). *An Emission Control Service.*
- ❑ Inspect fuel tank, cap and lines for damage or leaks. Inspect fuel cap gasket for any damage. Replace parts as needed. *An Emission Control Service. (See footnote †.)*
- ❑ Inspect ignition coil plug cap (or every 30 months, whichever occurs first). *An Emission Control Service.*
- ❑ Drain, flush and refill cooling system (or every 30 months, whichever occurs first). See *Engine Coolant on page 5-28* for what to use. Inspect hoses. Clean radiator, condenser, pressure cap and neck. Pressure test the cooling system and pressure cap. *An Emission Control Service. (See footnote †.)*
- ❑ Replace engine air cleaner filter. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service.*
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*
- ❑ Change manual transmission fluid.
- ❑ Change transfer case fluid.

- ❑ Change differential fluid.
- ❑ Replace fuel filter (or every 30 months, whichever occurs first). *An Emission Control Service. (See footnote †.)*
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

93,000 Miles (155 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

96,000 Miles (160 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

99,000 Miles (165 000 km)

- ❑ Change engine oil and filter (or every 3 months, whichever occurs first). *An Emission Control Service.*

100,000 Miles (166 000 km)

- ❑ If you haven't used your vehicle under severe service conditions listed previously and, therefore, haven't changed your automatic transmission fluid, change both the fluid and filter.

120,000 Miles (200 000 km)

- ❑ Replace evaporative emission canister and air suction filter (or every 120 months, whichever occurs first). *An Emission Control Service.*

Long Trip/Highway Scheduled Maintenance

The services shown in this schedule up to 100,000 miles (166 000 km) should be repeated after 100,000 miles (166 000 km) at the same intervals for the life of this vehicle. The services shown at 120,000 miles (200 000 km) should be repeated at the same interval after 120,000 miles (200 000 km) for the life of this vehicle.

See *Part B: Owner Checks and Services on page 6-24* and *Part C: Periodic Maintenance Inspections on page 6-28*.

Footnotes

† *The U.S. Environmental Protection Agency or the California Air Resources Board has determined that the failure to perform this maintenance item will not nullify the emission warranty or limit recall liability prior to the completion of the vehicle's useful life. We, however, urge that all recommended maintenance services be performed at the indicated intervals and the maintenance be recorded.*

+ *A good time to check your brakes is during tire rotation. See Brake System Inspection on page 6-29*.

7,500 Miles (12 500 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

15,000 Miles (25 000 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Inspect engine air cleaner filter. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service. (See footnote †.)*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - In hilly or mountainous terrain.
  - When doing frequent trailer towing.
  - Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

22,500 Miles (37 500 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

30,000 Miles (50 000 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Replace passenger compartment air filters.
- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - − In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - − In hilly or mountainous terrain.
  - − When doing frequent trailer towing.
  - − Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*
- ❑ Inspect engine accessory drive belts (or every 30 months, whichever occurs first). *An Emission Control Service.*

- ❑ Drain, flush and refill cooling system (or every 30 months, whichever occurs first). See *Engine Coolant on page 5-28* for what to use. Inspect hoses. Clean radiator, condenser, pressure cap and neck. Pressure test the cooling system and pressure cap. *An Emission Control Service. (See footnote †.)*
- ❑ Inspect ignition coil plug cap (or every 30 months, whichever occurs first). *An Emission Control Service. (See footnote †.)*
- ❑ Replace engine air cleaner filter. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service.*
- ❑ Inspect fuel tank, cap and lines for damage or leaks. Inspect fuel cap gasket for any damage. Replace parts as needed. *An Emission Control Service. (See footnote †.)*
- ❑ Change manual transmission fluid.
- ❑ Change transfer case fluid.
- ❑ Change differential fluid.
- ❑ Replace fuel filter (or every 30 months, whichever occurs first, or sooner if filter is clogged). *An Emission Control Service. (See footnote †.)*
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

37,500 Miles (62 500 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

45,000 Miles (75 000 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Inspect engine air cleaner filter. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service. (See footnote †.)*
- ❑ If Equipped: Inspect passenger compartment air filters.
- ❑ Inspect automatic transmission fluid hose (or every 45 months, whichever occurs first).

- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - In hilly or mountainous terrain.
  - When doing frequent trailer towing.
  - Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

52,500 Miles (87 500 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

60,000 Miles (100 000 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Replace passenger compartment air filters.
- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - In hilly or mountainous terrain.
  - When doing frequent trailer towing.
  - Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*
- ❑ Inspect engine accessory drive belts (or every 30 months, whichever occurs first). *An Emission Control Service.*

- ❑ Drain, flush and refill cooling system (or every 30 months, whichever occurs first). See *Engine Coolant on page 5-28* for what to use. Inspect hoses. Clean radiator, condenser, pressure cap and neck. Pressure test the cooling system and pressure cap. *An Emission Control Service. (See footnote †.)*
- ❑ Replace spark plugs. *An Emission Control Service.*
- ❑ Inspect ignition coil plug cap (or every 30 months, whichever occurs first). *An Emission Control Service.*
- ❑ Replace engine air cleaner filter. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service.*
- ❑ Inspect fuel tank, cap and lines for damage or leaks. Inspect fuel cap gasket for any damage. Replace parts as needed. *An Emission Control Service. (See footnote †.)*
- ❑ Change manual transmission fluid.
- ❑ Change transfer case fluid.
- ❑ Change differential fluid.
- ❑ Replace fuel filter (or every 30 months, whichever occurs first. *An Emission Control Service. (See footnote †.)*
- ❑ Inspect emission system hoses and replace as necessary. *An Emission Control Service. (See footnote †.)*
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.
- ❑ Drain, refill and bleed the brake system.

67,500 Miles (112 500 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

75,000 Miles (125 000 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Inspect engine air cleaner filter. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service. (See footnote †.)*
- ❑ If Equipped: Inspect passenger compartment air filters.

- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - − In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - − In hilly or mountainous terrain.
  - − When doing frequent trailer towing.
  - − Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.

82,500 Miles (137 500 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

90,000 Miles (150 000 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ If Equipped: Replace passenger compartment air filters.
- ❑ Inspect engine accessory drive belts (or every 30 months, whichever occurs first). *An Emission Control Service.*
- ❑ Inspect automatic transmission fluid hose (or every 45 months, whichever occurs first).
- ❑ Change automatic transmission fluid and filter if the vehicle is mainly driven under one or more of these conditions:
  - − In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher.
  - − In hilly or mountainous terrain.
  - − When doing frequent trailer towing.
  - − Uses such as found in taxi, police or delivery service.

If you do not use your vehicle under any of these conditions, change the fluid and filter every 100,000 miles (166 000 km).

- ❑ Drain, flush and refill cooling system (or every 30 months, whichever occurs first). See *Engine Coolant on page 5-28* for what to use. Inspect hoses. Clean radiator, condenser, pressure cap and neck. Pressure test the cooling system and pressure cap. *An Emission Control Service. (See footnote †.)*
- ❑ Inspect ignition coil plug cap (or every 30 months, whichever occurs first). *An Emission Control Service.*
- ❑ Replace engine air cleaner filter. See *Engine Air Cleaner/Filter on page 5-20* for more information. *An Emission Control Service.*
- ❑ Inspect fuel tank, cap and lines for damage or leaks. Inspect fuel cap gasket for any damage. Replace parts as needed. *An Emission Control Service. (See footnote †.)*
- ❑ Change manual transmission fluid.
- ❑ Change transfer case fluid.
- ❑ Change differential fluid.
- ❑ Replace fuel filter (or every 30 months, whichever occurs first. *An Emission Control Service. (See footnote †.)*
- ❑ Inspect propeller shafts and U-joints for looseness and damage (or every 15 months, whichever occurs first). Inspect more frequently if used off-road or for pulling a trailer. Tighten U-joint flange bolts if necessary.
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

97,500 Miles (162 500 km)

- ❑ Change engine oil and filter (or every 7.5 months, whichever occurs first). *An Emission Control Service.*
- ❑ Rotate tires. See *Tire Inspection and Rotation on page 5-60* for proper rotation pattern and additional information. *(See footnote +.)*

100,000 Miles (166 000 km)

- ❑ If you haven't used your vehicle under severe service conditions listed previously and, therefore, haven't changed your automatic transmission fluid, change both the fluid and filter.

120,000 Miles (200 000 km)

- ❑ Replace evaporative emissions canister and air suction filter (or every 120 months, whichever occurs first). *An Emission Control Service.*

Part B: Owner Checks and Services

Listed in this part are owner checks and services which should be performed at the intervals specified to help ensure the safety, dependability and emission control performance of your vehicle.

Be sure any necessary repairs are completed at once. Whenever any fluids or lubricants are added to your vehicle, make sure they are the proper ones, as shown in Part D.

At Each Fuel Fill

It is important for you or a service station attendant to perform these underhood checks at each fuel fill.

Engine Oil Level Check

Check the engine oil level and add the proper oil if necessary. See *Engine Oil on page 5-16* for further details.

Engine Coolant Level Check

Check the engine coolant level and add the proper coolant mixture if necessary. See *Engine Coolant on page 5-28* for further details.

Windshield Washer Fluid Level Check

Check the windshield washer fluid level in the windshield washer tank and add the proper fluid if necessary. See *Windshield Washer Fluid on page 5-41* for further details.

Hood Latch Operation Check

Pull the primary hood latch release handle inside the vehicle. The secondary latch should keep the hood from opening all the way when the primary latch is released. Make sure the hood closes firmly. See *Hood Release on page 5-10* for further details.

At Least Once a Month

Tire Inflation Check

Visually inspect your tires and make sure tires are inflated to the correct pressures. Don't forget to check your spare tire. See *Tires on page 5-59* for further details.

At Least Twice a Year

Restraint System Check

Make sure the safety belt reminder light and all your belts, buckles, latch plates, retractors and anchorages are working properly. Look for any other loose or damaged safety belt system parts. If you see anything that might keep a safety belt system from doing its job, have it repaired. Have any torn or frayed safety belts replaced.

Also look for any opened or broken air bag coverings, and have them repaired or replaced. (The air bag system does not need regular maintenance.)

Wiper Blade Check

Inspect wiper blades for wear or cracking. Replace blade inserts that appear worn or damaged or that streak or miss areas of the windshield. Also see *Cleaning the Outside of Your Vehicle on page 5-82*.

Weatherstrip Lubrication

Silicone grease on weatherstrips will make them last longer, seal better, and not stick or squeak. Apply silicone grease with a clean cloth. During very cold, damp weather more frequent application may be required. See *Part D: Recommended Fluids and Lubricants on page 6-30*.

Fluid Level Check

Check the transfer case, axle differential(s) and automatic or manual transmission fluid levels and add as needed. See *Rear Axle on page 5-52*, *Four-Wheel Drive on page 5-53*, and *Automatic Transmission Fluid on page 5-23* or *Manual Transmission Fluid on page 5-26*. Check for leaks. A fluid loss in these systems could indicate a problem. Have the system inspected and repaired at once.

At Least Once a Year

Key Lock Cylinders Service

Lubricate the key lock cylinders with the lubricant specified in Part D.

Body Lubrication Service

Lubricate all body door hinges. Also lubricate all hinges and latches, including those for the hood, rear compartment, glove box door, console door and folding seat hardware. Part D tells you what to use. More frequent lubrication may be required when exposed to a corrosive environment.

Starter Switch Check

⚠ CAUTION:

When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before you start, be sure you have enough room around the vehicle.
2. Firmly apply both the parking brake and the regular brake. See *Parking Brake on page 2-27* if necessary.

   Do not use the accelerator pedal, and be ready to turn off the engine immediately if it starts.
3. On automatic transmission vehicles, try to start the engine in each gear. The starter should work only in PARK (P) or NEUTRAL (N). If the starter works in any other position, your vehicle needs service.

   On manual transmission vehicles, put the shift lever in NEUTRAL (N), push the clutch down halfway and try to start the engine. The starter should work only when the clutch is pushed down all the way to the floor. If the starter works when the clutch isn't pushed all the way down, your vehicle needs service.

Automatic Transmission Shift Lock Control System Check

⚠ CAUTION:

When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before you start, be sure you have enough room around the vehicle. It should be parked on a level surface.
2. Firmly apply the parking brake. See *Parking Brake on page 2-27* if necessary.

   Be ready to apply the regular brake immediately if the vehicle begins to move.
3. With the engine off, turn the key to the ON position, but don't start the engine. Without applying the regular brake, try to move the shift lever out of PARK (P) with normal effort. If the shift lever moves out of PARK (P), your vehicle needs service.

Ignition Transmission Lock Check

While parked, and with the parking brake set, try to turn the ignition key to LOCK in each shift lever position.

- With an automatic transmission, the key should turn to LOCK only when the shift lever is in PARK (P).
- With a manual transmission, the key should turn to LOCK only if you push the key in farther, while turning it towards LOCK.

On all vehicles, the key should come out only in LOCK.

Parking Brake and Automatic Transmission Park (P) Mechanism Check

⚠ CAUTION:

When you are doing this check, your vehicle could begin to move. You or others could be injured and property could be damaged. Make sure there is room in front of your vehicle in case it begins to roll. Be ready to apply the regular brake at once should the vehicle begin to move.

Park on a fairly steep hill, with the vehicle facing downhill. Keeping your foot on the regular brake, set the parking brake.

- To check the parking brake's holding ability: With the engine running and transmission in NEUTRAL (N), slowly remove foot pressure from the regular brake pedal. Do this until the vehicle is held by the parking brake only.
- To check the PARK (P) mechanism's holding ability: With the engine running, shift to PARK (P). Then release the parking brake followed by the regular brake.

  If your vehicle is four-wheel drive, be sure the transfer case is not in NEUTRAL.

Underbody Flushing Service

At least every spring, use plain water to flush any corrosive materials from the underbody. Take care to clean thoroughly any areas where mud and other debris can collect.

Part C: Periodic Maintenance Inspections

Listed in this part are inspections and services which should be performed at least twice a year (for instance, each spring and fall). *You should let your dealer's service department do these jobs. Make sure any necessary repairs are completed at once.*

Proper procedures to perform these services may be found in a service manual. See *Service Publications Ordering Information on page 7-11*.

Steering, Suspension and Front Drive Axle Boot and Seal Inspection

Inspect the front and rear suspension and steering system for damaged, loose or missing parts, signs of wear or lack of lubrication. Inspect the power steering lines and hoses for proper hook-up, binding, leaks, cracks, chafing, etc. Clean and then inspect the drive axle boot seals for damage, tears or leakage. Replace seals if necessary.

Exhaust System Inspection

Inspect the complete exhaust system. Inspect the body near the exhaust system. Look for broken, damaged, missing or out-of-position parts as well as open seams, holes, loose connections or other conditions which could cause a heat build-up in the floor pan or could let exhaust fumes into the vehicle. See *Engine Exhaust on page 2-32*.

Fuel System Inspection

Inspect the complete fuel system for damage or leaks.

Engine Cooling System Inspection

Inspect the hoses and have them replaced if they are cracked, swollen or deteriorated. Inspect all pipes, fittings and clamps; replace as needed. Clean the outside of the radiator and air conditioning condenser. To help ensure proper operation, a pressure test of the cooling system and pressure cap is recommended at least once a year.

Throttle System Inspection

Inspect the throttle system for interference or binding, and for damaged or missing parts. Replace parts as needed. Replace any components that have high effort or excessive wear. Do not lubricate accelerator and cruise control cables.

Rear Axle and Front Axle (Four-Wheel-Drive) Service

Check the gear lubricant level and add if needed. See *Rear Axle on page 5-52* and *Four-Wheel Drive on page 5-53*. A fluid loss may indicate a problem. Check the system(s), and repair the system(s) if needed. Refer to *Part A: Scheduled Maintenance Services on page 6-4* to determine when to change the lubricant.

Brake System Inspection

Inspect the complete system. Inspect brake lines and hoses for proper hook-up, binding, leaks, cracks, chafing, etc. Inspect disc brake pads for wear and rotors for surface condition. Also inspect drum brake linings for wear and cracks. Inspect other brake parts, including drums, wheel cylinders, calipers, parking brake, etc. Check parking brake adjustment. You may need to have your brakes inspected more often if your driving habits or conditions result in frequent braking.

Part D: Recommended Fluids and Lubricants

Fluids and lubricants identified below by name, part number or specification may be obtained from your dealer.

Usage	Fluid/Lubricant
Engine Oil	Engine oil with the American Petroleum Institute Certified for Gasoline Engines starburst symbol of the proper viscosity. To determine the preferred viscosity for your vehicle's engine, see *Engine Oil on page 5-16*.
Engine Coolant	50/50 mixture of clean, drinkable water (preferably distilled) and good quality Ethylene Glycol Base Coolant (GM Part No. U.S. 12378560, in Canada 993089, or equivalent) and conforming to GM Specification 1825M or approved recycled coolant conforming to GM Specification 1825M. See *Engine Coolant on page 5-28*.
Hydraulic Brake System	Delco Supreme 11® Brake Fluid or equivalent DOT-3 brake fluid.
Windshield Washer Solvent	GM Optikleen® Washer Solvent or equivalent.
Hydraulic Clutch System	Hydraulic Clutch Fluid (GM Part No. U.S. 12345347, in Canada 10953517, or equivalent DOT-3 brake fluid).
Parking Brake Cable Guides	Chassis Lubricant (GM Part No. U.S. 12377985, in Canada 88901242, or equivalent) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.
Power Steering System	DEXRON®-III Automatic Transmission Fluid.
Manual Transmission (All) and Transfer Case (Four-Wheel-Drive)	Synchromesh Transmission Fluid (GM Part No. U.S. 12345349, in Canada 10953465, or equivalent).
Automatic Transmission	DEXRON®-III Automatic Transmission Fluid.
Key Lock Cylinders	Multi-Purpose Lubricant, Superlube (GM Part No. U.S. 12346241, in Canada 10953474, or equivalent).

Usage	Fluid/Lubricant
Manual Transmission Shift Linkage	Chassis Lubricant (GM Part No. U.S. 12377985, in Canada 88901242, or equivalent) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.
Clutch Linkage Pivot Points	Chassis Lubricant (GM Part No. U.S. 12377985, in Canada 88901242, or equivalent) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.
Floor Shift Linkage	Lubriplate Lubricant Aerosol (GM Part No. U.S. 12346293, in Canada 992723, or equivalent) or lubricant meeting requirements of NLGI #2 Category LB or GC-LB.
Chassis Lubrication	Chassis Lubricant (GM Part No. U.S. 12377985, in Canada 88901242, or equivalent) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.

Usage	Fluid/Lubricant
Rear Axle (All) and Front Axle (Four-Wheel Drive)	Axle Lubricant (GM Part No. U.S. 12345977, in Canada 10953482) or SAE 80W-90 GL-5 gear lubricant.
Hood Latch Assembly, Secondary Latch, Pivots, Spring Anchor and Release Pawl	Lubriplate Lubricant Aerosol (GM Part No. U.S. 12346293, in Canada 992723, or equivalent) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.
Hood and Door Hinges	Multi-Purpose Lubricant, Superlube (GM Part No. U.S. 12346241, in Canada 10953474, or equivalent).
Weatherstrip Conditioning	Dielectric Silicone Grease (GM Part No. U.S. 12345579, in Canada 10953014, or equivalent).

Part E: Maintenance Record

After the scheduled services are performed, record the date, odometer reading and who performed the service and any additional information from “Owner Checks and Services” or “Periodic Maintenance” on the following record pages. Also, you should retain all maintenance receipts.

Maintenance Record

Date	Odometer Reading	Serviced By	Maintenance Record

Maintenance Record (cont'd)

Date	Odometer Reading	Serviced By	Maintenance Record

Maintenance Record (cont'd)

Date	Odometer Reading	Serviced By	Maintenance Record

Section 7 Customer Assistance Information

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Customer Assistance Information

Customer Satisfaction Procedure

Your satisfaction and goodwill are important to your dealer and to Chevrolet. Normally, any concerns with the sales transaction or the operation of your vehicle will be resolved by your dealer's sales or service departments. Sometimes, however, despite the best intentions of all concerned, misunderstandings can occur. If your concern has not been resolved to your satisfaction, the following steps should be taken:

STEP ONE: Discuss your concern with a member of dealership management. Normally, concerns can be quickly resolved at that level. If the matter has already been reviewed with the sales, service or parts manager, contact the owner of the dealership or the general manager.

STEP TWO: If after contacting a member of dealership management, it appears your concern cannot be resolved by the dealership without further help, contact the Chevrolet Customer Assistance Center by calling 1-800-222-1020. In Canada, contact GM of Canada Customer Communication Centre in Oshawa by calling 1-800-263-3777 (English) or 1-800-263-7854 (French).

We encourage you to call the toll-free number in order to give your inquiry prompt attention. Please have the following information available to give the Customer Assistance Representative:

- Vehicle Identification Number (This is available from the vehicle registration or title, or the plate at the top left of the instrument panel and visible through the windshield.)
- Dealership name and location
- Vehicle delivery date and present mileage

When contacting Chevrolet, please remember that your concern will likely be resolved at a dealer's facility. That is why we suggest you follow Step One first if you have a concern.

STEP THREE: Both General Motors and your dealer are committed to making sure you are completely satisfied with your new vehicle. However, if you continue to remain unsatisfied after following the procedure outlined in Steps One and Two, you should file with the GM/BBB Auto Line Program to enforce any additional rights you may have. Canadian owners refer to your Warranty and Owner Assistance Information booklet for information on the Canadian Motor Vehicle Arbitration Plan (CAMVAP).

The BBB Auto Line Program is an out of court program administered by the Council of Better Business Bureaus to settle automotive disputes regarding vehicle repairs or the interpretation of the New Vehicle Limited Warranty. Although you may be required to resort to this informal dispute resolution program prior to filing a court action, use of the program is free of charge and your case will generally be heard within 40 days.
If you do not agree with the decision given in your case, you may reject it and proceed with any other venue for relief available to you.

You may contact the BBB using the toll-free telephone number or write them at the following address:

BBB Auto Line
Council of Better Business Bureaus, Inc.
4200 Wilson Boulevard
Suite 800
Arlington, VA 22203-1804

Telephone: 1-800-955-5100

This program is available in all 50 states and the District of Columbia. Eligibility is limited by vehicle age, mileage and other factors. General Motors reserves the right to change eligibility limitations and/or discontinue its participation in this program.

Online Owner Center

The Owner Center is a resource for your GM ownership needs. You can find your specific vehicle information all in one place.

The Owner Center allows you to:

- Get e-mail service reminders.
- Access information about your specific vehicle, including tips and videos and an electronic version of this owner's manual. (United States only)
- Keep track of your vehicle's service history and maintenance schedule.
- Find GM dealers for service nationwide.
- Receive special promotions and privileges only available to members. (United States only)

Refer to the web for updated information.

To register your vehicle, visit www.MyGMLink.com. (United States) or My GM Canada within www.gmcanada.com (Canada).

Customer Assistance for Text Telephone (TTY) Users

To assist customers who are deaf, hard of hearing, or speech-impaired and who use Text Telephones (TTYs), Chevrolet has TTY equipment available at its Customer Assistance Center. Any TTY user can communicate with Chevrolet by dialing: 1-800-833-CHEV (2438). (TTY users in Canada can dial 1-800-263-3830.)

Customer Assistance Offices

Chevrolet encourages customers to call the toll-free number for assistance. If a U.S. customer wishes to write to Chevrolet, the letter should be addressed to Chevrolet's Customer Assistance Center.

United States – Customer Assistance

Chevrolet Motor Division
Chevrolet Customer Assistance Center
P.O. Box 33170
Detroit, MI 48232-5170

1-800-222-1020
1-800-833-2438 (For Text Telephone devices (TTYs))
Roadside Assistance: 1-800-CHEV-USA® (243-8872)
Fax Number: 313-381-0022

From Puerto Rico:
1-800-496-9992 (English)
1-800-496-9993 (Spanish)
Fax Number: 313-381-0022

From U.S. Virgin Islands:
1-800-496-9994
Fax Number: 313-381-0022

Canada – Customer Assistance

General Motors of Canada Limited
Customer Communication Centre, 163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

1-800-263-3777 (English)
1-800-263-7854 (French)
1-800-263-3830 (For Text Telephone devices (TTYs))
Roadside Assistance: 1-800-268-6800

Overseas – Customer Assistance

Please contact the local General Motors Business Unit.

Mexico, Central America and Caribbean Islands/Countries (Except Puerto Rico and U.S. Virgin Islands) – Customer Assistance

General Motors de Mexico, S. de R.L. de C.V.
Customer Assistance Center
Paseo de la Reforma # 2740
Col. Lomas de Bezares
C.P. 11910, Mexico, D.F.
01-800-508-0000
Long Distance: 011-52-53 29 0 800

GM Mobility Program for Persons with Disabilities

This program, available to qualified applicants, can reimburse you up to $1,000 toward eligible aftermarket driver or passenger adaptive equipment you may require for your vehicle (hand controls, wheelchair/scooter lifts, etc.).

This program can also provide you with free resource information, such as area driver assessment centers and mobility equipment installers. The offer is available for a limited period of time from the date of vehicle purchase/lease. For more details, or to determine your vehicle's eligibility, see your GM dealer or call the GM Mobility Assistance Center at 1-800-323-9935. Text telephone (TTY) users, call 1-800-833-9935.

GM of Canada also has a Mobility Program. Call 1-800-GM-DRIVE (463-7483) for details. All TTY users call 1-800-263-3830.

Roadside Assistance Program

To enhance Chevrolet's strong commitment to customer satisfaction, Chevrolet is excited to announce the establishment of the Chevrolet Roadside Assistance Center. As the owner of a 2003 Chevrolet, membership in Roadside Assistance is free.

Roadside Assistance is available 24 hours a day, 365 days a year, by calling 1-800-CHEV-USA (243-8872). This toll-free number will provide you over-the-phone roadside assistance with minor mechanical problems. If your problem cannot be resolved over the phone, our advisors have access to a nationwide network of dealer recommended service providers. Roadside membership is free; however some services may incur costs.

Roadside offers two levels of service to the customer, *Basic Care* and *Courtesy Care:*

Roadside *Basic Care* provides:

- Toll-free number, 1-800-CHEV-USA (243-8872), text telephone (TTY) users, call 1-888-889-2438
- Free towing for warranty repairs
- Basic over-the-phone technical advice
- Available dealer services at reasonable costs (i.e., wrecker services, locksmith/key service, glass repair, etc.)

Roadside *Courtesy Care* provides:

- Roadside *Basic Care* services (as outlined previously)

  Plus:
- FREE Non-Warranty Towing (to the closest dealer from a legal roadway)
- FREE Locksmith/Key Service (when keys are lost on the road or locked inside)
- FREE Flat Tire Service (spare installed on the road)
- FREE Jump Start (at home or on the road)
- FREE Fuel Delivery ($5 of fuel delivered on the road)

Chevrolet offers Courtesy Transportation for customers needing warranty service. Courtesy Transportation will be offered in conjunction with the coverage provided by the Bumper-to-Bumper New Vehicle Limited Warranty to eligible purchasers of 2003 Chevrolet passenger cars and light duty trucks. (See your selling dealer for details.)

Courtesy Care is available to retail and retail lease customers operating 2003 and newer Chevrolet vehicles for a period of 3 years/36,000 miles (60 000 km), whichever occurs first. All *Courtesy Care* services must be pre-arranged by Chevrolet Roadside or dealer service management.

Basic Care and *Courtesy Care* are not part of or included in the coverage provided by the New Vehicle Limited Warranty. Chevrolet reserves the right to modify or discontinue *Basic Care* and *Courtesy Care* at any time.

The Roadside Assistance Center uses companies that will provide you with quality and priority service. When roadside services are required, our advisors will explain any payment obligations that may be incurred for utilizing outside services.

For prompt assistance when calling, please have the following available to give to the advisor;

- Vehicle Identification Number (VIN)
- License plate number
- Vehicle color
- Vehicle location
- Telephone number where you can be reached
- Vehicle mileage
- Description of problem

Canadian Roadside Assistance

Vehicles purchased in Canada have an extensive Roadside Assistance program accessible from anywhere in Canada or the United States. Please refer to the Warranty and Owner Assistance Information book.

Courtesy Transportation

Chevrolet has always exemplified quality and value in its offering of motor vehicles. To enhance your ownership experience, we and our participating dealers are proud to offer Courtesy Transportation, a customer support program for new vehicles.

The Courtesy Transportation program is offered to retail purchase/lease customers in conjunction with the Bumper-to-Bumper coverage provided by the New Vehicle Limited Warranty. Several transportation options are available when warranty repairs are required. This will reduce your inconvenience during warranty repairs.

Plan Ahead When Possible

When your vehicle requires warranty service, you should contact your dealer and request an appointment. By scheduling a service appointment and advising your service consultant of your transportation needs, your dealer can help minimize your inconvenience.

If your vehicle cannot be scheduled into the service department immediately, keep driving it until it can be scheduled for service, unless, of course, the problem is safety-related. If it is, please call your dealership, let them know this, and ask for instructions.

If the dealer requests that you simply drop the vehicle off for service, you are urged to do so as early in the work day as possible to allow for same day repair.

Transportation Options

Warranty service can generally be completed while you wait. However, if you are unable to wait Chevrolet helps minimize your inconvenience by providing several transportation options. Depending on the circumstances, your dealer can offer you one of the following:

Shuttle Service

Participating dealers can provide you with shuttle service to get you to your destination with minimal interruption of your daily schedule. This includes a one way shuttle ride to a destination up to 10 miles from the dealership.

Public Transportation or Fuel Reimbursement

If your vehicle requires overnight warranty repairs, reimbursement up to $30 per day (five day maximum) may be available for the use of public transportation such as taxi or bus. In addition, should you arrange transportation through a friend or relative, reimbursement for reasonable fuel expenses up to $10 per day (five day maximum) may be available. Claim amounts should reflect actual costs and be supported by original receipts.

Courtesy Rental Vehicle

When your vehicle is unavailable due to overnight warranty repairs, your dealer may arrange to provide you with a courtesy rental vehicle or reimburse you for a rental vehicle you obtained, at actual cost, up to a maximum of $30.00 per day supported by receipts. This requires that you sign and complete a rental agreement and meet state, local and rental vehicle provider requirements. Requirements vary and may include minimum age requirements, insurance coverage, credit card, etc. You are responsible for fuel usage charges and may also be responsible for taxes, levies, usage fees, excessive mileage or rental usage beyond the completion of the repair.

Generally it is not possible to provide a like-vehicle as a courtesy rental.

Additional Program Information

Courtesy Transportation is available during the Bumper-to-Bumper warranty coverage period, but it *is not* part of the New Vehicle Limited Warranty. A separate booklet entitled “Warranty and Owner Assistance Information” furnished with each new vehicle provides detailed warranty coverage information.

Courtesy Transportation is available only at participating dealers and all program options, such as shuttle service, may not be available at every dealer. Please contact you dealer for specific information about availability. All Courtesy Transportation arrangements will be administered by appropriate dealer personnel.

Canadian Vehicles: For warranty repairs during the Complete Vehicle Coverage period of the General Motors of Canada New Vehicle Limited Warranty, alternative transportation may be available under the Courtesy Transportation Program. Please consult your dealer for details.

General Motors reserves the right to unilaterally modify, change or discontinue Courtesy Transportation at any time and to resolve all questions of claim eligibility pursuant to the terms and conditions described herein at its sole discretion.

Reporting Safety Defects

Reporting Safety Defects to the United States Government

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA), in addition to notifying General Motors.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer or General Motors.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in the Washington, D.C. area) or write to:

NHTSA, U.S. Department of Transportation
Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from the hotline.

Reporting Safety Defects to the Canadian Government

If you live in Canada, and you believe that your vehicle has a safety defect, you should immediately notify Transport Canada, in addition to notifying General Motors of Canada Limited. You may write to:

Transport Canada
330 Sparks Street
Tower C
Ottawa, Ontario K1A 0N5

Reporting Safety Defects to General Motors

In addition to notifying NHTSA (or Transport Canada) in a situation like this, we certainly hope you'll notify us. Please call us at 1-800-222-1020, or write:

Chevrolet Motor Division
Chevrolet Customer Assistance Center
P.O. Box 33170
Detroit, MI 48232-5170

In Canada, please call us at 1-800-263-3777 (English) or 1-800-263-7854 (French). Or, write:

General Motors of Canada Limited
Customer Communication Centre, 163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Service Publications Ordering Information

Service Manuals

Service Manuals have the diagnosis and repair information on engines, transmission, axle, suspension, brakes, electrical, steering, body, etc.

RETAIL SELL PRICE: $120.00

Transmission, Transaxle, Transfer Case Unit Repair Manual

This manual provides information on unit repair service procedures, adjustments, and specifications for GM transmissions, transaxles, and transfer cases.

RETAIL SELL PRICE: $50.00

Service Bulletins

Service Bulletins give technical service information needed to knowledgeably service General Motors cars and trucks. Each bulletin contains instructions to assist in the diagnosis and service of your vehicle.

In Canada, information pertaining to Product Service Bulletins can be obtained by contacting your General Motors dealer or by calling 1-800-GM-DRIVE (1-800-463-7483).

Owner's Information

Owner publications are written specifically for owners and intended to provide basic operational information about the vehicle. The owner's manual will include the Maintenance Schedule for all models.

In-Portfolio: Includes a Portfolio, Owner's Manual, and Warranty Booklet.

RETAIL SELL PRICE: $35.00

Without Portfolio: Owner's Manual only.

RETAIL SELL PRICE: $25.00

Current and Past Model Order Forms

Service Publications are available for current and past model GM vehicles. To request an order form, please specify year and model name of the vehicle.

ORDER TOLL FREE: 1-800-551-4123 Monday-Friday 8:00 AM - 6:00 PM Eastern Time

For Credit Card Orders Only (VISA-MasterCard-Discover), visit Helm, Inc. on the World Wide Web at: www.helminc.com

Or you can write to:

Helm, Incorporated
P. O. Box 07130
Detroit, MI 48207

Prices are subject to change without notice and without incurring obligation. Allow ample time for delivery.

Note to Canadian Customers: All listed prices are quoted in U.S. funds. Canadian residents are to make checks payable in U.S. funds.

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